

WALKER RANCH MANAGEMENT PLAN



**Boulder County Parks and Open Space
Walker Ranch Management Plan
July 2013**

The Walker Ranch Management Plan provides guidance to Boulder County Parks and Open Space on management goals at Walker Ranch Open Space.

Public comments on this draft management plan were accepted from May 15 – June 15, 2013. A public meeting was held at the Clerk and Recorder’s Office in Boulder on June 15 5:30 – 7:30 p.m. , all public comments were analyzed and any necessary revisions to the draft plan were made. The draft plan was presented to the Parks & Open Space Advisory Committee on May 23, 2013, beginning at 6:30 p.m., and the final plan was presented to the Board of County Commissioners at a Public Hearing on July 30, 2013 at 4:30 p.m.

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Parks & Open Space Department • Boulder County

ADOPTED:

Chair, Board of County Commissioners

Date

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EXECUTIVE SUMMARY

Located west of the City of Boulder in south-central Boulder County, Walker Ranch is one of the most visited parks in the county's Parks and Open Space system. From the beginning, Boulder County Parks and Open Space (BCPOS) has managed the property to balance historic preservation, native habitat protection, and recreation (Walker Ranch Management Plan, 1985). The purpose of this management plan is to update the management of the property to take into account additional land acquisition, major milestones in historic preservation, and to recognize the increasing importance of studying and protecting native ecosystems.

Purpose

The County Commissioners approved the first Walker Ranch Management Plan in 1985. At the time, BCPOS owned and managed over 2,500 acres of the original Walker Ranch property. That first plan recognized the need to maintain and enhance the natural food, cover, and nesting areas for native wildlife; the importance of historic preservation; and the need to only develop a rudimentary trail system. Many of those goals were met early in the development of the Open Space.

Now, 28 years after that plan was adopted by the County Commissioners, additional land has been secured to create 3,616 acres of public land. The property is designated a National Historic Landmark, contains over 14 miles of trails, and resources are managed to promote wildlife habitat. While many of the goals of the first plan have been met, the landscape at Walker has changed. The Eldorado Canyon Fire reduced tree cover on the Central Ranch, trail erosion has begun to impact habitat surrounding trails, and changes surrounding the property have impact Walker Ranch itself.

The Walker Ranch Management Plan is an update in some respects, but is also an assessment of different circumstances. Since its opening, Walker Ranch has been managed to balance many different purposes. The purpose of this management plan is to carry on that tradition.

Management Direction

The Walker Ranch Management Plan proposes a number of new ways to manage the property. Again, the purpose is to maintain much of what users have come to expect from the open space while ensuring that the many services the property provides can continue well into the future. Management changes are focused on that need to address specific issues.

Historic preservation continues to be a focus of management at Walker Ranch. By maintaining a closure around the Walker Ranch homestead, recognizing the specific standards used to restore the homestead, and committing to continued educational opportunities; it is the goal of BCPOS to bolster the preservation of Walker Ranch.

Walker Ranch's variety of habitats, position linking large areas of native habitat, and low level of surrounding development; make it a valuable area from an ecological standpoint. By recognizing this value and conserving particular areas as protected from over-use, BCPOS hopes to safeguard native populations of both plants and animals.

Walker Ranch Management Plan

Recreation is the way that most visitors interact with Walker Ranch's landscape. Proximity to Boulder and variety of experiences make Walker Ranch a great destination for recreation. The management plan focuses on addressing deficiencies in the current trail network, offering new experiences, and preparing for regional connections throughout the mountains and down to the plains.

1 INTRODUCTION

1.1 INTRODUCTION

This Walker Ranch Management Plan Update is intended to build upon the Walker Ranch Management Plan approved by the County Commissioners in July 1985. This first plan covered the areas of Walker Ranch acquired in the original purchase. The management goals and direction are based on a combination of staff work and public outreach. The goals, direction, and actions cover natural resource management; visitor use; and cultural resource protection. The update focuses on carrying forward successes from the original management plan and addressing issues that have developed in the intervening 27 years.

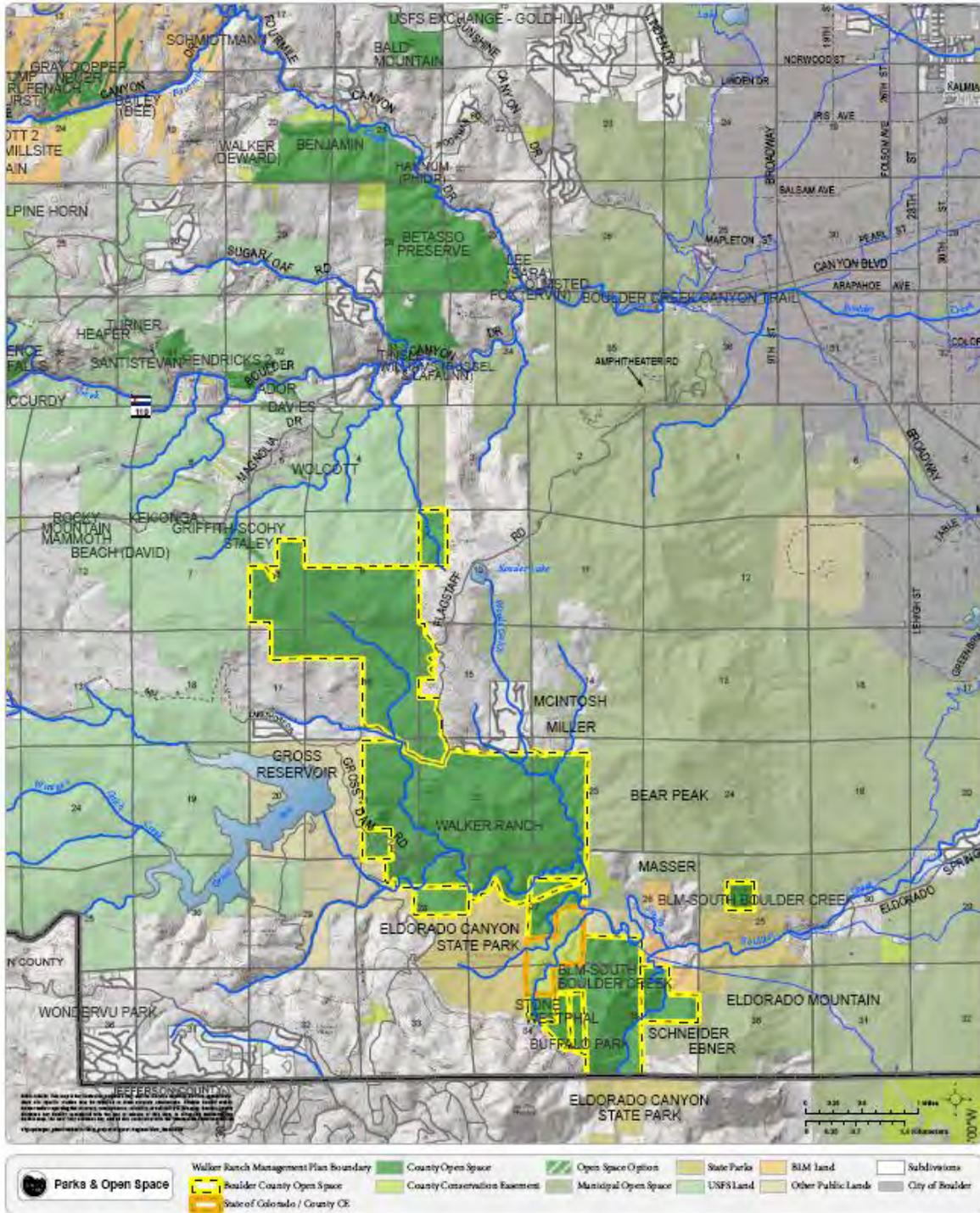
Walker Ranch now consists of more than 3,616 acres of Open Space. The park consists of lower montane habitat just west of the City of Boulder in the foothills of the Rocky Mountains. The Ranch's size and location mean that it includes stream corridors, gulches, montane shrublands, meadows, forested slopes, and steep rocky outcrops all of which provide important habitat for plants and wildlife in the lower montane zone. All of these features may have made this property attractive to the earliest European settlers in the area. The ranching and logging practices of these settlers had a distinct impact on the property. Since the property's acquisition by Boulder County, the park has become a popular destination for a wide variety of open space users. The properties diverse habitats have attracted nature lovers for viewing and study. The trails built soon after acquisition; continue to attract hikers, bikers, runners, and dog walkers. Combined with a considered effort to preserve and interpret the ranching past of this property, all of these features make Walker Ranch an important part of the county's Parks and Open Space program and make management a requirement to preserve the property for future users.

The main entrances to the property are located directly off Flagstaff Road west of the City of Boulder. Walker Ranch is situated between the western side of the dramatic Flatirons formation and Gross Reservoir to the west (Figure 1: Area Map). The Open Space makes up a significant portion of the Hawkins Gulch, Walker Ranch, Eldorado Canyon Environmental Conservation Area (Boulder County Comp Plan, 1995) and is situated east of the ecologically important Twin Sisters Peak. In 2006, Boulder County received a patent for more than 800 acres of Bureau of Land Management property through the Recreation and Public Purposes Act (R&PPA) along with an additional 125 acres acquired from private landowners, Walker Ranch now includes almost 1,000 acres of rugged and rarely visited land known as BLM South. While this southern area includes no legal public access, the majority of Walker Ranch can be accessed from three BCPOS managed trailheads (Meyers Gulch, Walker Loop, and Ethel Harrold) as well as an unofficial access point from Gross Dam Road and from the State Parks trailhead at Crescent Meadows south of the Walker Loop trail.

Boulder County Parks and Open Space acquired the first portions of Walker Ranch from a property development group beginning in 1977 and acquiring the final piece of the property that includes Meyers Gulch and Walker Ranch in 1986. As noted above, BCPOS acquired an additional 800 acres from the BLM in 2006 along with private acreage adjacent to BLM South (Figure 2: Walker Map).

Walker Ranch Management Plan

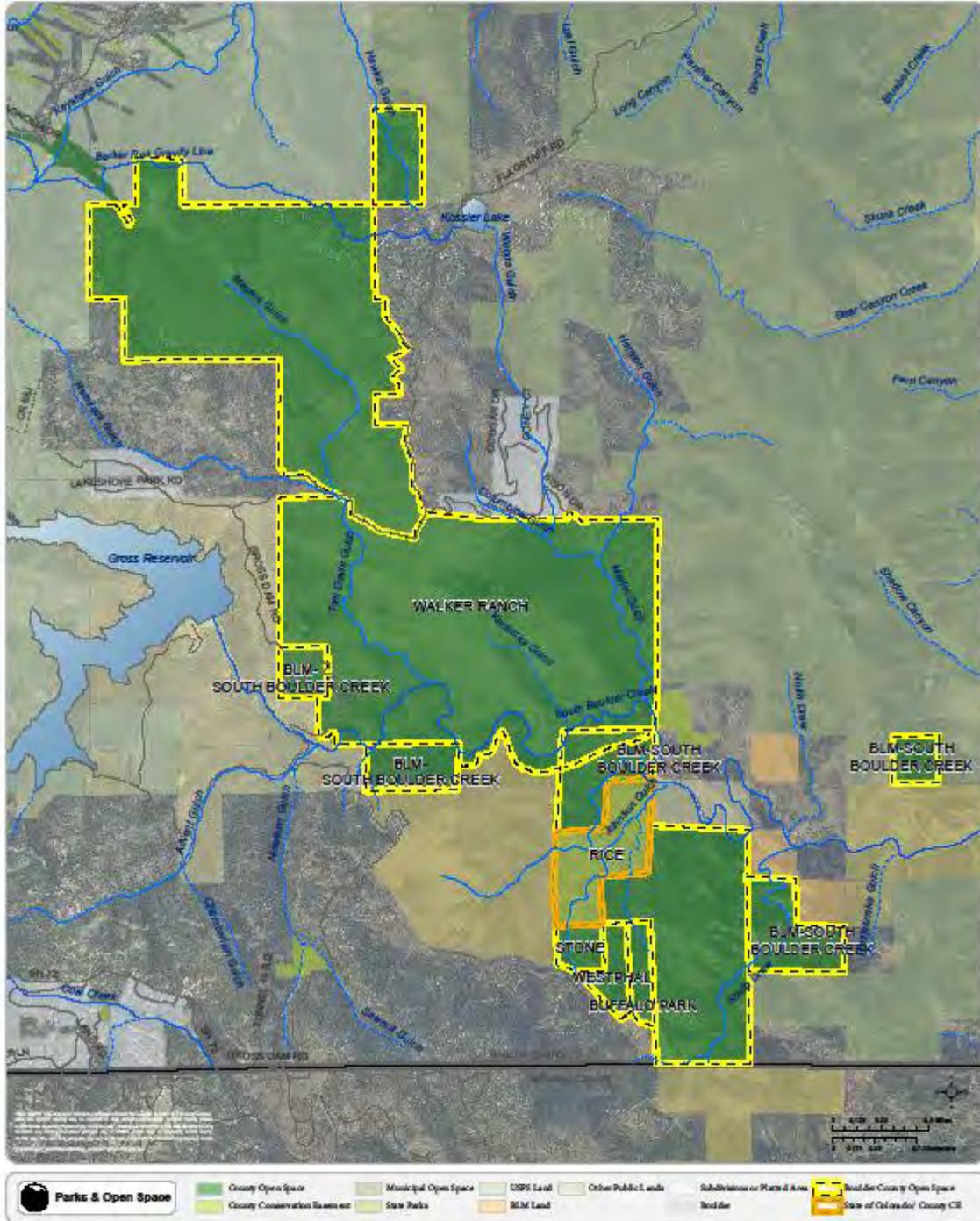
Figure 1: Regional View Map



Walker Ranch Management Plan

Walker Ranch Management Plan

Figure 2: Property Map



Walker Ranch Management Plan

The Walker Ranch Management Plan update builds on the existing Management Plan to set forth a management program for the next 15 to 20 years. The goal of the plan is to maintain the highly valuable natural resources that were protected through the original acquisition while offering opportunities to recreate and experience this land that was purchased through the generosity of the residents of Boulder County. The plan includes protections for important natural resources, describes the importance of the cultural resources and methods for protecting those resources, recommends trail realignment to protect resources, and lays out opportunities for regional trail connections.

1.2 PROPERTY DESCRIPTION

1.2.1 LOCATION

Walker Ranch Open Space is located in the Front Range of the Rocky Mountains five miles southwest of the City of Boulder. The property consists of 3,616 acres in the Lower Montane-Foothill ecological zone. The initial properties that make up Walker Ranch were acquired by Boulder County in 1977. The last of the properties addressed in this plan was acquired in 2006 (Table 1.Walker Ranch Land Status). The property is located within portions of Sections 8, 9, 10, 15, 16, 17, 21, 22, 23, 25, 26, 27, 28, 33, 34, and 35 all in Township 1 South, Range 71 West of the 6th Principal Meridian.

The open space has many neighbors. To the north and west the property is bounded by US Forest Service land, Denver Water, and private property. To the east it is bordered by private property, Bureau of Land Management, and City of Boulder Open Space and Mountain Parks property. To the south, Walker Ranch is bordered by Eldorado Canyon State Park and private lands.

The landscape of Walker Ranch is mountainous with meadows, consistent with its location in the foothills of the Southern Rocky Mountains.

Property	Year Purchased	Landowner	Area (Acres)
Walker Ranch	1977	BCPOS	1450.898
Walker Ranch	1977	BCPOS	1114.604
Walker Ranch	1986	BCPOS	81.308
BLM –South Boulder Creek	2006	BCPOS	42.7
BLM –South Boulder Creek	2006	BCPOS	76.565
BLM –South Boulder Creek	2006	BCPOS	33.966
BLM –South Boulder Creek	2006	BCPOS	90.322
BLM –South Boulder Creek	2006	BCPOS	443.052
BLM –South Boulder Creek	2006	BCPOS	118.802
BLM –South Boulder Creek	2006	BCPOS	38.6
Stone	2006	BCPOS	37.086
Westphal	2006	BCPOS	46.402
Buffalo Park	2006	BCPOS	42.522

Walker Ranch Management Plan

Throughout this plan, Walker Ranch will be discussed as consisting of three distinct management areas: Meyer's Gulch, the Central Ranch, and BLM South. The Meyer's Gulch area is the northernmost section of the property and is located west and north of Flagstaff Road. It contains the Meyer's Homestead Trail and Trailhead as well as the Walker Ranch Link Trail and the property known as Hawkin's Gulch. The management area consists of 1,195.9 acres of open space property (Figure 3: Management Areas).

The Central Ranch (1,694.2 acres) contains the Walker Ranch Homestead, remains of the Langridge Dike mill, the Walker Loop Trail and links to Eldorado Canyon State Park. The Central Ranch area also includes four properties acquired from the Bureau of Land Management through the Recreation and Public Purposes Act. The Central Ranch is bounded on the north by Flagstaff Road and private property. To the east by City of Boulder Open Space and Mountain Parks property, to the south by the Crescent Meadows annex of Eldorado Canyon State Park, and to the west by Denver Water's Gross Dam.

South of Crescent Meadows is the BLM South area. The majority of this 687.7 acre management area was acquired from the BLM through the Recreation and Public Purposes Act. It includes three properties purchased along with the City of Boulder, but managed by Boulder County Parks and Open Space. This part of the park is bounded by a variety of publicly-owned land to the north, east and south and by private property and Crescent Meadows to the west.

The BLM South Management Area also includes the 38.6 acre BLM South Boulder Creek property located east of the majority of Walker Ranch Open Space. This parcel is bounded by City of Boulder Open Space on the West, North, and East sides and by Eldorado Canyon State Park on the South.

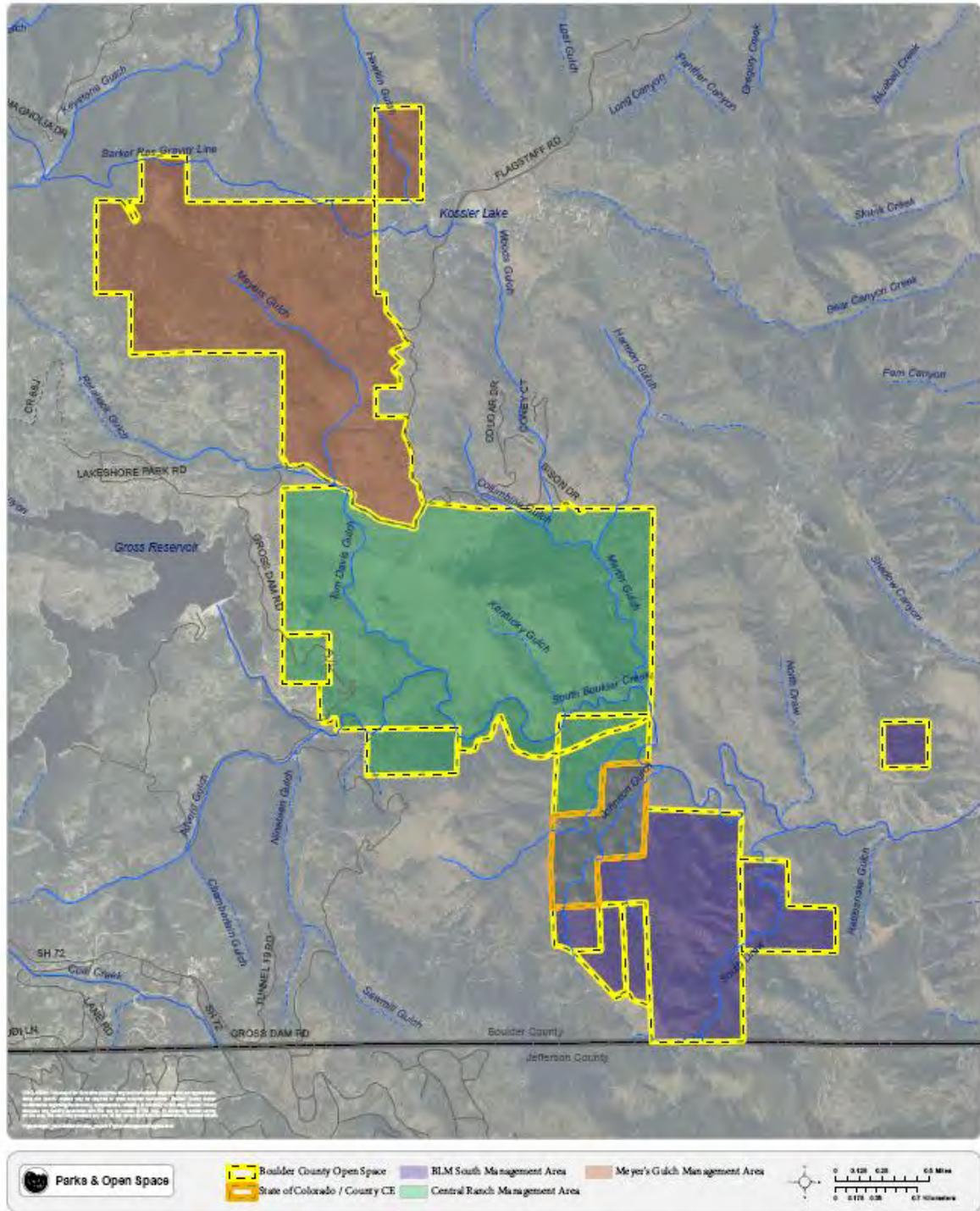
1.2.2 ACQUISITION HISTORY

In 1977 The County Commissioners entered into a lease-option contract with Mountain Valley Associates at a price of \$2,542,298 to be paid in individual option payments over an eight-year period. The final payment was made in 1985.

The remaining properties south of Walker Ranch were owned by the Bureau of Land Management (BLM) and had been mined and hunted throughout the BLM's ownership. In 1981, Boulder County entered into an agreement with the BLM through Recreation and Public Purposes Act (R&PPA) in order to acquire the properties through a improve to own scheme outlined in that Act. For 25 years, BCPOS would manage the properties and through a plan developed by staff, would provide recreational improvements to the properties. At the end of the 25-year period, if the BLM believed BCPOS met its obligations, the property would be deeded to the county in perpetuity. In 2006 the deed was transferred to the county.

Walker Ranch Management Plan

Figure 3: Management Region Area Map



1.2.3 EXISTING LAND USES

Walker Ranch Open Space has been open to the public for nature study, passive recreation, and cultural resource interpretation for more than 25 years. The land included in the first Walker Ranch Management Plan was acquired from a private land owner. Since that time, additional land was acquired from the Bureau of Land Management BLM through the Recreation and Public Purposes Act R&PPA and from private land owners. This means that while much of the land originally acquired has been subject to some level of human use for many years, areas within the newly acquired BLM lands may not have had human impact since mining exploration beyond limited hunting.

In 1984 (expanded in 1988) , Walker Ranch, excluding the properties acquired from the Bureau of Land Management, was listed in the National Register of Historic Places and the Colorado Register of Historic Properties. The focal point of the landmark is the Walker Ranch Homestead, however, everywhere on the property are signs of use by early settlers and there is evidence of use by Native Americans as well.

The property is also one of five properties within the BCPOS system that has a dedicated resident ranger. This ranger is not solely responsible for patrol at Walker Ranch but provides an added level of management and enforcement at Walker Ranch.

1.2.4 ACCESS

Walker Ranch is generally accessed through one of the three trailheads on Parks and Open Space property: Meyer's Gulch, Walker Loop, or Ethel Harrold. The property can also be accessed from the Crescent Meadows area of Eldorado Canyon State Park or from the main parking area of the State Park. Finally there is access along South Boulder Creek from the Gross Reservoir property of Denver Water.

The only emergency vehicular access to trails on the northern part of the property is from Flagstaff Road. From the south the property can be accessed from Gross Dam Road.

1.3 LAND USE CONSIDERATIONS

1.3.1 ADJACENT LAND USE AND OWNERSHIP

The lands around Walker Ranch Open Space are a mosaic of different ownership and management goals. Managing relationships with these various owners involves regular formal and informal contacts with residential land owners and more formal discussions and partnerships with institutional owners such as the City of Boulder, Colorado Parks and Wildlife, the US Forest Service, and Denver Water. These relationships allow us to maintain healthy ecosystems, connected trail systems, and reinforces the value of property rights.

Figure 2 shows the variety of ownership classifications surrounding Walker Ranch. To the east much of the property borders City of Boulder Open Space and Mountain Parks property. In addition there is private property, part of the two rural subdivisions that are within the Forestry zone as designated in the Boulder County Zoning Code. The South BLM property is additionally bordered by Eldorado Canyon State Park to the east and west. Walker Ranch's southern border can generally be described as Chute

Road, a private road in Boulder County that is bordered by private property and some U.S. Forest Service Land. To the west of the remainder of the property is a mix of Denver Water property, private property, and U.S. Forest Service land. To the north Walker Ranch is bordered again by private property and land owned by the City of Boulder and managed by Open Space and Mountain Parks or by the Boulder Utilities Board.

1.3.2 LEASES, EASEMENTS, ENCUMBRANCES, AND RIGHTS OF WAY

A list of easements impacting Boulder County can be found in Appendix B: Easements. Easement owners and those interested in the impact of specific easements should contact Boulder County Parks and Open Space for further information or if planning to work within easements.

1.3.3 BOULDER COUNTY COMPREHENSIVE PLAN

The Boulder County Comprehensive Plan provides guidance for the development of this management plan through the Open Space section of the plan. While the Comprehensive Plan is an “advisory document,” Parks and Open Space staff looks to it to guide goals for open space properties. Goals within the plan that relate to Walker Ranch include Environmental Management, Parks & Open Space, Community Facilities, Public Involvement, and Cultural Resources.

In the Comprehensive Plans appendices, the Commissioners point out important features or future plans on a series of maps. Much of Walker Ranch is designated as an Environmental Conservation Area on the Environmental Conservation Areas map and an area is designated as Montane Grassland on the Natural Communities, Rare Plants, Riparian Corridors, and Critical Wildlife Habitats Map. The map section of the plan also includes a map called the County Trails Map. The County Trails Map shows the Meyer’s Homestead and Walker Loop trails, as well as a trail “Corridor” extending from the Walker Loop trail to the west and to the east.

The Boulder County Comprehensive Plan is revised on an “as needed” basis. At the time of this writing, the Environmental Resources section of the Plan is being revised. While revisions at this time will not have any impact on the Walker Ranch Management Plan, future revisions may impact the management direction of this plan. In cases where these conflicts arise, the direction of the Comprehensive Plan supersedes the management plan.

1.4 SPECIAL DESIGNATIONS

1.4.1 ENVIRONMENTAL CONSERVATION AREAS

Walker Ranch is part of the Hawkin Gulch/Walker Ranch/Upper Eldorado Canyon Environmental Conservation Area (ECA), as outlined in the Boulder County Comprehensive Plan. Conservation Areas are designated in the Boulder County Comprehensive Plan using criteria that identify “landscape scale” areas that combine sites with critical wildlife habitat, rare plants, natural communities of special concern, as well as other natural features. The Hawkin/Walker/Eldorado Canyon ECA was designated to

recognize the importance of Walker Ranch as Critical Wintering Range and movement corridor for the Winiger Ridge Elk Herd, for the stands of old growth Ponderosa Pine, and the large mammal movement corridor created through the large protected area that is Walker Ranch (Figure 4: Comprehensive Plan Designations).

1.4.2 COLORADO NATURAL HERITAGE PROGRAM

In 2008, the Colorado Natural Heritage Program (CNHP) completed a county-wide survey of historical records, observations, and previously developed data to create the Survey of Critical Biological Resources in Boulder County, Colorado. The plan's stated purpose was to:

The goal of the project was to systematically identify the locations of rare species and significant natural plant communities in Boulder County, and to identify and prioritize areas of critical habitat (potential conservations areas) for these species and communities.

The report noted the presence of many invertebrates in the Walker Ranch area as well as historic sightings of animals that have not been seen in Boulder County in many years. Based on topography, biodiversity, and preservation, the Walker Ranch was included in the Boulder Foothills Potential Conservation Area which is rated as having Very High Biodiversity Significance because of the presence of some globally rare plants and/or animals and a number of globally common but rare to Colorado plants and/or animals. While CNHP data is generalized to protect both private property owners and the rare species being surveyed, the protection of this area is vital due to the large agglomeration of conserved land. As a unit, the land conserved by the City of Boulder, Boulder County, Colorado State Parks, the U.S. Forest Service, and the Bureau of Land Management means that a large connected landmass is conserved in the very long term.

1.5 PLANNING OVERVIEW

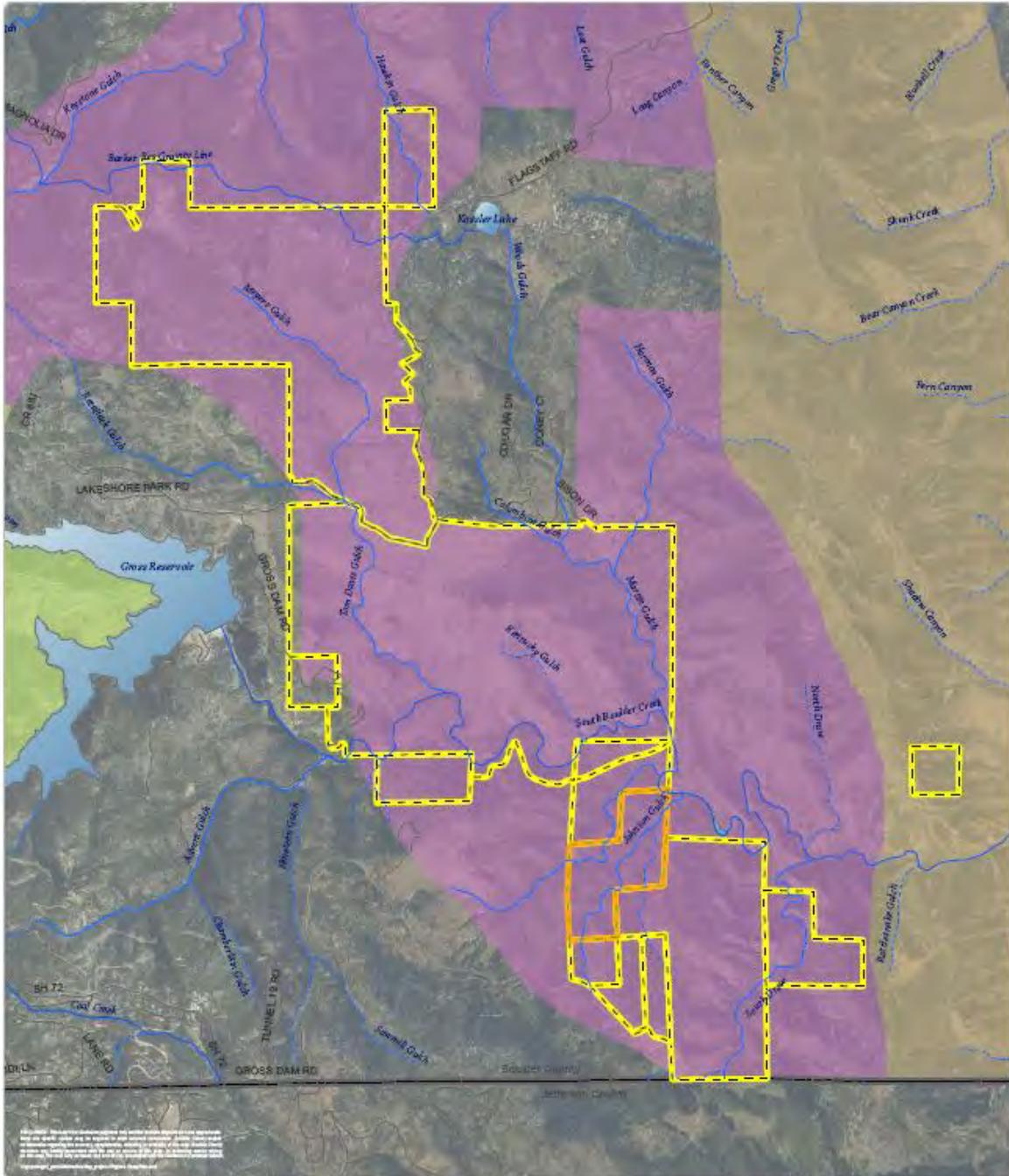
1.5.1 PURPOSE

Boulder County Parks and Open Space management plans are documents used by the staff to lay out a vision of future management for a property or group of properties. The Boulder County Commissioners approved a management plan for Walker Ranch in 1985. A new plan is necessary to recognize the changes that have occurred at Walker Ranch in the intervening 22 years. This plan should be reviewed and updated, as necessary, in approximately 15 years.

Changes in these last 22 years at Walker Ranch Open Space include: an increase in visitor use; trail expansion; a major wildfire, the acquisition of property around the original purchase; and designation in the National Register of Historic Places and the Colorado State Register of Historic Properties. While maintenance and interim closures have met many of the immediate concerns with these changes, they cannot be effective long term. An update is necessary to keep pace with this change and develop a management direction and management goals for the next 15 years.

Walker Ranch Management Plan

Figure 4: Comprehensive Plan Designations Map



Parks & Open Space	Boulder County Open Space	Boulder Mountain Park - South Boulder	Winiger Ridge
State of Colorado/ County CE	Hawk Gulch - Walker Ranch		

Walker Ranch Management Plan

The Walker Ranch Management Plan Update will provide management direction and goals to guide actions on the ground, make users aware of planned changes, and allow for accurate and timely budgeting and forecasting.

1.5.2 PLANNING VISION AND GOALS

In 1985 The Walker Ranch Management Plan began with this statement for the plan's objectives:

Walker Ranch is owned by Boulder County and managed by the Boulder County Parks and Open Space Department. The property is managed for low intensity recreation, for cultural site preservation, and for wildlife habitat preservation. Specific objectives for the park include the following:

- 1. Manage the property as a wildlife sanctuary by maintaining or enhancing natural food, cover, and nesting areas.***
- 2. Manage the property to restore and preserve historic structures.***
- 3. Manage the property to restore or enhance native vegetation to serve as an "outdoor laboratory" of a typical montane ecosystem.***
- 4. Provide visitors with minimal development of trail, picnic, and other recreation facilities.***
- 5. Provide on-site environmental education opportunities for the public.***
- 6. Maintain the forest resource of Walker Ranch to minimize fire hazards for adjacent properties.***
- 7. Encourage development of a regional management plan with agencies managing land along the South Boulder Creek drainage.***

1.5.3 VISION STATEMENT

With this update, comes a new vision and set of goals. Walker Ranch Management Vision and Goals

Walker Ranch is an open space that preserves and interprets Boulder County's cultural past; protects vibrant native ecosystems; and offers high quality passive recreation to the citizens of Boulder County.

1.5.4 GOALS

Based on that vision BCPOS' management has goals specific to the many areas covered by staff:

Cultural Resources: Walker Ranch should be managed to preserve and promote the historic significance of its buildings, structures, features, landscape, and archaeological resources on the property.

Walker Ranch Management Plan

Management should focus on promoting the historic significance of the ranch and maintaining the historic physical integrity of the resources.

Forestry: Portions of Walker Ranch experienced a devastating fire in 2001. Forestry in areas affected by the fire should be focused on maintaining the current landscape. Other areas should be managed to protect against the threat of fire or to enhance existing forest cover.

Wildlife: The landscape, as well as the key location of Walker Ranch provides habitat and movement corridors for a wide variety of wildlife.

Management should focus on maintaining and improving habitat suitability. Management should also focus on providing increased levels of protection for areas deemed highly sensitive and therefore potentially not appropriate for visitor use.

Vegetation: Management of vegetative resources should focus on improving and maintaining plant species, plant communities and wildlife habitat and studying existing communities at Walker Ranch.

Visitor Use: While visitors report being largely satisfied with the Walker Ranch user experience, user conflict should be managed using available tools. Trails should be redesigned to reduce conflict, properties should be open for public access when possible, and staff should capitalize on educational opportunities. Recreation is an important part of the value of Walker Ranch, but recreational opportunities should be balanced against protecting and preserving natural resources.

1.6 RELATIONSHIP TO OTHER PLANS, PROGRAMS, AND PLANNING EFFORTS

1.6.1 BOULDER COUNTY COMPREHENSIVE PLAN

The Boulder County Comprehensive Plan provides guidance for the development of this management plan through the Open Space section of the plan. While the Comprehensive Plan is an “advisory document,” Parks and Open Space staff looks to it to guide goals for open space properties. Goals within the plan that relate to Walker Ranch include Environmental Management, Parks & Open Space, Community Facilities, Public Involvement, and Cultural Resources.

In the Comprehensive Plans appendices, the Commissioners point out important features or future plans on a series of maps. Much of Walker Ranch is designated as an Environmental Conservation Area on the Environmental Conservation Areas map and an area is designated as Montane Grassland on the Natural Communities, Rare Plants, Riparian Corridors, and Critical Wildlife Habitats Map. The map section of the plan also includes a map called the County Trails Map. The County Trails Map shows the Meyer’s Homestead and Walker Loop trails, as well as a trail “Corridor” extending from the Walker Loop trail to the west and to the east.

The Boulder County Comprehensive Plan is revised on an “as needed” basis. At the time of this writing, the Environmental Resources section of the Plan is being revised. While revisions at this time will not have any impact on the Walker Ranch Management Plan, future revisions may impact the management

direction of this plan. In cases where these conflicts arise, the direction of the Comprehensive Plan supersedes the management plan.

1.6.2 BOULDER VALLEY COMPREHENSIVE PLAN

The Boulder Valley Comprehensive Plan does not directly address Walker Ranch Open Space. However, it strongly supports trail connections and connecting Boulder Valley with Boulder Creek's tributaries, including South Boulder Creek through trail development.

1.6.3 PARKS AND OPEN SPACE RESOURCE POLICIES

Beginning in 2006, Boulder County Parks and Open Space began developing policies based on resources managed by the county within Open Space properties. The goal of this project was to develop a set of policy guidelines for the long-term management of county-owned properties. These resource policies would help translate the broad goals of the Comprehensive Plan to a level that could be used to guide annual and daily decision-making.

The County Commissioners have approved resource policies for Water, Forestry, Cropland, and Conservation Easements. The County will complete policies for Wildlife, Grasslands, Cultural Resources, and Visitor Use in the next several years. The Walker Ranch plan adheres to these policies with an eye toward maintaining a standard of management for other resources known to exist at Walker Ranch.

1.6.4 OTHER FEDERAL, STATE, OR LOCAL PLANS

Walker Ranch is adjacent to a significant amount of land set aside by state, local, and federal land management agencies. These lands are governed under separate management doctrines and plans. However, through communication and cooperation each agency works with others to ensure that management continues while respecting the management goals of the surrounding agencies.

1.7 SURVEYS

Boulder County regularly conducts countywide surveys of residents in order to gather information regarding proposed and enacted policies. Questions in these phone surveys often address a wide variety of subjects, but it is one of the many ways Boulder County Parks and Open Space gathers information about its visitors.

Since the 1980s, BCPOS has used on-site visitor surveys to gather additional information at specific parks within the BCPOS system. The surveys are designed to provide decision-makers with new information about park visitors every five years, but they can also serve as a long-term or longitudinal study of visitation. Questions are generally broad and some are open-ended in order to try to make allowance for changing use patterns.

Walker Ranch has been part of the 5 year study since its inception; however, in addition it was studied separately in 2008 in order to try to understand how visitors and neighbors use the park and how they feel about management of the park.

Walker Ranch Management Plan

Select results from the 5 year study and the Walker Ranch-specific survey are available in the study's appendix. The full surveys are available online:

<http://www.bouldercounty.org/os/culture/pages/posresearch.aspx>.

Survey Results

The five year survey produced some interesting results at Walker Ranch that are relevant to this management plan:

The neighbor and user survey completed in 2008 outlined some of the management ideas that ought to be included in the management of the park:

The most recent edition of the Five-year Visitor Survey was completed in 2010. Volunteers and staff collected 2,388 surveys from park visitors during the survey period (a 70% response rate). The first question posed by the survey was the primary purpose of the survey-taker's visit to that particular property:

Activity	Percent of Respondents (2010)	Percent of Respondents (2005)	Percent of Respondents (2000)
Hike	40	46	39
Bike	23	25	21
Run	9	9	6
Walk the Dog	9	0	2
Fish	5	4	10
View Wildlife	5	4	15
Picnic	3	2	18
Ride a Horse	1	1	2

The 8th question in the survey asked about acceptable uses of open space:

	Acceptable	Unacceptable
Trails/Recreation	94%	6%
Preserve Views	92%	8%
Wildlife Habitat	86%	14%
Conserve Native Ecosystems	81%	19%
Urban Buffers	62%	38%
Renewable Energy	36%	64%
Agriculture	31%	69%

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Question 10 asked, based on the park at which the survey was taken, provide a description of the number of trails on a scale of 1 to 5:

	2010
1 – Not Enough	12%
2	17%
3 – About the right number of trails	60%
4	2%
5 – Too many trails	1%
Not sure	
Blank	8%

Reviewing just the data gathered at Walker Ranch we found the following details: :

Question 1:

Activity	Walker Ranch Loop Trailhead			Walker Ranch Meyer's Homestead Trail		
	2010	2005	2000	2010	2005	2000
Hike	41%	33%	40%	65%	51%	51%
Bike	42%	63%	4%7	24%	38%	37%
Run	10%	2%	2%			
Walk the dog				2%		3%
Ride a Horse						
Fish	2%		5%			
Picnic	1%					
View Wildlife	1%		11%			
Special Event						
Family Gathering						
Photography/Art				3%		
Other	3%	4%		6%	11%	

At the Walker Ranch Loop trailhead, users most often cited the desire to connect to Eldorado Canyon State Park by bike as a needed improvement for the trail. Meyer's Homestead Trail users generally cited the need for more/longer trails from the trailhead. Both trailheads were highly rated for their beauty and views.

In 2008, staff and volunteers worked together to produce; Walker Ranch Management: A Survey of Visitors and Neighboring Landowners at Walker Ranch Open Space. Many of the questions were similar to the visitor use study held every five years.

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Activity Type	Trailhead				Overall:
	Loop Trailhead	Meyer's Homestead Trailhead	Ethel Harrold Trailhead		
Mountain Bike	Count	352	85	21	458
	%	51.8%	29.4%	55.3%	45.5%
Hike	Count	245	161	11	417
	%	36.1%	55.7%	28.9%	41.5%
Run	Count	36	9	0	45
	%	5.3%	3.1%	0.0%	4.5%
Other	Count	7	19	0	26
	%	1.0%	6.6%	0.0%	2.6%
Walk the Dog	Count	16	9	0	25
	%	2.4%	3.1%	0.0%	2.5%
Fish	Count	16	1	6	23
	%	2.4%	0.3%	15.8%	2.3%
View Wildlife	Count	1	5	0	6
	%	0.1%	1.7%	0.0%	0.6%
Left blank	Count	2	0	0	2
	%	0.3%	0.0%	0.0%	0.2%
Family Gathering	Count	2	0	0	2
	%	0.3%	0.0%	0.0%	0.2%
Picnic	Count	1	0	0	1
	%	0.1%	0.0%	0.0%	0.1%
Photography/Art	Count	1	0	0	1
	%	0.1%	0.0%	0.0%	0.1%
Totals:	Count	679	289	38	1006
	%	67.5%	28.7%	3.8%	100.0%

While the vast majority of users visit the Walker Loop Trailhead, the Meyer's Homestead Trailhead is more popular with hikers than with bikers. This seems to be borne out by a similar split at Ethel Harrold Trailhead.

Users at each trailhead were asked what improvement they would most like to see at Walker Ranch in the future and their answers were tabulated by their planned activity. At the Walker Loop, the vast majority of users in each user group wanted to keep the trail the same: Mountain bikers (17%), Hikers (12%) Runners (2%). Dog walkers (3%) of all users surveyed bucked that trend when 1% proposed allowing off-leash use. At Meyer's surveyed users said the same thing. All user groups surveyed preferred changing nothing at the trailhead.

1.8 PLANNING PROCESS

The Walker Ranch Management Plan update process began with internal meetings in the fall of 2010. While the schedule and specific number of meetings is not standardized, the planning process does include a combination of internal and external meetings with stakeholders in order to develop a robust

management program. This mix of meetings includes meetings with institutional stakeholders, public meetings, and interest group meetings. The purpose of this format and the length of the process is to gather as much information from as many sources as possible to develop a workable management program that can be implemented over time to realize the goals of the Commissioners.

After initial internal meetings identified a need to consult with specific interest groups, meetings were arranged with park neighbors, recreationists, and conservationists to try to establish areas of agreement and possible areas of disagreement. These meetings with a small subset of stakeholders allowed the staff to understand specific areas of concern for the planning process.

The first public meeting was an open house held at the Clerk and Recorder's Office in Boulder. This meeting was designed to gather input by providing information about Walker Ranch through maps and then encouraging attendees to add notes to the maps to help staff understand management issues within the park. More than 50 Boulder County residents participated and the information gathered was shared with staff in order to further focus management goals.

Internal meetings focused on addressing concerns raised by the public and situating the planning process in the context of other planning processes happening at the same time. Staff presented information gathered over years of monitoring. After presenting alternatives for management goals, the staff felt that there were a limited number of changes required to continue management in line with public input.

In November 2012, BCPOS staff presented the preferred alternative to about 65 residents at the Transportation Department office in Boulder. The purpose of this meeting was to gauge stakeholders' response to the preferred management direction developed by staff. As a result of that meeting, the staff decided to alter some management projects and to reexamine trail development both on the property and as part of a regional context.

After additional internal consultation, BCPOS staff presented a draft management plan to the public on April 16, 2013.

1.9 CLIMATE CHANGE IMPACTS

The world's climate is changing. Regardless of the cause, Boulder County has made the decision to think critically about the impact of these changes. In 2012, the County Commissioners approved the Boulder County Climate Change Preparedness Plan. The plan explores the challenges and opportunities available to the county and the City of Boulder based on the many studies that predict the range of possible impacts of climate change on the Front Range of Colorado.

Boulder County Parks and Open Space manages and maintains property throughout Boulder County that will experience significant impacts from climate change. Therefore, management of open space must maintain a level of flexibility to respond to changes. Management at Walker Ranch must be particularly sensitive to these changes as the variety of landscapes is likely to respond in divergent ways to changes in the climate.

2 MANAGEMENT

This chapter provides a description of the existing biological, physical, and socioeconomic characteristics, including human uses that could be affected by implementing the management direction presented in this management plan, as described in Chapter 3. Information from resource-specific surveys and broad-scale assessments was used to help set the context for the planning area. Specific aspects of each resource discussed in this section were raised during the public and internal scoping process.

Acreage figures and other numbers used are approximations; readers should not infer that they reflect exact measurements or precise calculations. Acreages were calculated using GIS technology, and there may be slight variations in total acres between resources.

2.1 PHYSICAL SETTING

2.1.1 CLIMATE

Walker Ranch is located in the western portion of Boulder County to the west of the City of Boulder. The park is located in the Rocky Mountain foothills at an elevation between 6,200 and 8,200 feet. The climate would best be described as semi-arid with high temperature fluctuations and most precipitation occurring in the spring and summer and an annual average of 23 inches.

2.1.2 TOPOGRAPHY

Walker Ranch lies within the physiographic province known as the Southern Rocky Mountain Province. The rolling foothills topography seen over all three areas of Walker Ranch today resulted from relatively recent geologic events coinciding with or following the last great series of mountain uplifts during the last 70 million years. Since the area was uplifted, erosion has been the dominant force carving the present topography. Rain and snow melt waters have formed the gullies and gulches that carry water to South Boulder Creek and to the plains.

2.1.3 GEOLOGY AND SOILS

2.1.3.1 Classification and Description

The Natural Resource Conservation Service (NRCS) performs periodic soil surveys of land within the United States. In the latest study of the Walker Ranch area, NRCS identified three (3) soil types: the Fern Cliff-Allen's Park complex (FcF), Juget-Rock outcrops (JrF), Peyton-Juget complex PgE, and Ro or Rock outcrop which consists of steep slopes and cliffs of exposed bedrock (Figure 5: Soils and Water).

The Fern Cliff – Allen's Park Complex is made up primarily of Fern Cliff and Allen's Park soils, as the name implies. The soils in this complex are generally well-drained to excessively-drained. The soil can extend to 80 inches deep before lithic bedrock and is generally classified as suitable for grazing or forest lands.

The Juget – Rock outcrop soil complex is a mix of shallow excessively-drained Juget type soils and un-weathered exposed bedrock. This complex is suitable for forested land, wildlife habitat, and grazing.

A mix of ‘well-drained’ and ‘somewhat excessively-drained’ soils make up the Peyton – Juget soils complex. Peyton soils make up the majority of this complex and are found mostly in the valley bottoms in and around Walker Ranch.

The remaining areas of Walker Ranch are classified as Rock outcrops. These areas are the cliffs and rock faces of Walker Ranch that exhibit the exposed bedrock of the area. Rock outcrops are suitable for habitat and are generally classified by the Natural Resources Conservation Service as suitable for recreation and viewsheds.

2.1.4 WATER RESOURCES

2.1.4.1 Surface Water

Water is an important resource on Walker Ranch. South Boulder Creek crosses the southern portion of Walker Ranch as it leaves Gross Reservoir. The majority of the surface water on Walker Ranch ends up in South Boulder Creek and it is these gulches and drainages that provide unique habitats across the property. The major drainages and gulches on the property are: Meyer’s Gulch, Tom Davis Gulch, South Draw, and Kentucky Gulch (Figure 5: Soil and Water).

2.1.4.2 Groundwater

The steep topography allows runoff to reach streams relatively quickly. However, because of the limited storage capacity of the hard crystalline rock found at Walker Ranch, much of the precipitation returns to the atmosphere by evapo-transpiration. Only a portion of the amount of rain and snow water that falls upon the drainage flows out in streams. Much evaporates, some is used by plants, and some seeps into the ground. The crystalline rocks store water in cracks, and serve as water table aquifers only where the rock has been fractured. Water may move more rapidly through fractures that occur in these crystalline rocks. These rocks have a median measured depth to water of 27.5 feet below the surface (Hall, Hillier, Cain, and Boyd, 1980) in Boulder County in a sample of 149 wells.

2.2 NATURAL RESOURCES

2.2.1 GENERAL ECOLOGY

The physical location of Walker Ranch within the ecotone between the Great Plains to the east and the high Rocky Mountains to the west, accounts for the environmental conditions in the area. The ecotone between the two larger ecosystems creates a highly diverse intermixing of plant and animal species. Additionally, the topography of the property contributes to the diversity of species and communities by offering a multitude of growing conditions and structures over a short horizontal (elevational) distance. Also, linear bands of riparian vegetation and complexes of montane forests and meadows within the property account for high species richness. This richness is further increased by the presence of the perennial streams, South Boulder Creek and its tributary, South Draw, as well as numerous ephemeral and seasonally flooded drainages.

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On the Front Range, the principle environmental features affecting species richness include slope, aspect, elevation, soil, water and the primary factors are climate, and natural disturbance. The interplay of these features and factors help to define the incredibly dynamic ecosystems found at Walker Ranch. The montane forests at Walker Ranch are interspersed with naturally occurring meadows. These meadow areas are located where deposition of deep fine textured soils have consolidated these soils are suited to support forb and grass species. Also found on the property are small patches of aspen stands. The grass and forb species found among the aspen stands is higher in diversity and includes more mesic species than is found in the coniferous woodlands and forests. The meadows or grassland openings at Walker Ranch are generally composed of a mix of native bunch grasses or tufted grasses and some rhizomatous grasses and native forbs.

The property also includes the presence of differing shrub communities; either associated with dry rocky sites or mesic conditions (wetter soils and along streams). The area that was burned in the 2000 Eldorado Canyon Fire altered a large portion of the property from montane forests to a spatial mix of open grass and shrub community with pockets of tree cover. The linear riparian communities include the presence of coniferous trees and deciduous trees and shrubs. Grasses, sedges, rushes and forbs make up the understory vegetation.

Historically, anthropogenic factors significantly impacted the ecology of the site by introducing non-native pasture grasses and forbs that compete with the native species for resources. Additionally, the use of fire, logging, mining, farming, ranching, water diversion, homesteading, fencing, and any number of other human impacts have played a role in altering ecosystem function in the area. While our continued use of the property does have an impact on ecosystems, through management of non-native species, careful recreation planning, and regular monitoring; we actively manage the natural resources at Walker Ranch.

2.2.2 OVERALL BIOLOGICAL AND CONSERVATION VALUE

Walker Ranch is recognized in both the Boulder County Comprehensive Plan and the Colorado Natural Heritage Program's survey of Boulder County Resources as an area important for biological resources and high conservation values.

The Boulder County Comprehensive Plan includes Walker Ranch within the Hawkin Gulch/Walker Ranch/Upper Eldorado Canyon Environmental Conservation Area ECA. This high biodiversity is further supported by the vegetation mapping findings of at least 48 Plant Alliances (USNVC) and over 720 plant species.

2.2.3 VEGETATION

This discussion of vegetation at Walker Ranch is not meant to be comprehensive. The purpose of this section is to provide some context for management decisions as well as to give decision-makers and the public some framework within which to make future decisions. This section will present information on plant communities at Walker Ranch divided by the three management areas described earlier in this

plan. This section will provide additional focus to specific species requiring additional attention, wetlands, areas impacted by the Eldorado Canyon Fire, and weeds.

The information provided in this section is derived from mapping efforts performed by BCPOS and contractors, property wide surveys conducted by Earthwork Conservation Planning, LLC, and the Colorado Natural Heritage Program. Vegetation surveying, mapping, and monitoring are guided and performed by BCPOS' Plant Ecology staff (Figure 6: Vegetation). This group of four plant ecologists works within the Resource Management Division to conserve and manage plants across the many properties managed by BCPOS. The vegetation mapping done at Walker Ranch followed the U.S. National Vegetation Classification System (USNVC). The USNVC system is a hierarchical system based on top down structure. Thus the presence of alliances described by upper level tree structure would preclude the presence of a large number of lower structure alliances. The most significant herbaceous alliances consisting of shrubs, forbs, and grasses are found located in the forest openings of the park. So far the vegetation surveys and mapping have identified at least 48 Plant Alliances comprising over 720 plant species. This further supports the inclusion of this area into the Very High Biodiversity as noted by CNHP. An explanation of U.S. National Vegetation Classification System is located in Appendix D of this plan (<http://usnvc.org/explore-classification/>). Where appropriate the vegetation is described using the USNVC nomenclature. Also included in this plan are the rarity ranking of species and communities as determined by the Colorado Natural Heritage Program is included (Appendix E and F).

2.2.3.1 Meyer's Gulch

The Meyer's Gulch management area features high ridges on the northeast and southwest while Meyer's Gulch itself flows northwest to southeast through the middle of the property. This topography generally dictates the plant communities or vegetation alliances present within the management area. Forest and woodland communities dominated by Ponderosa Pine (*Pinus ponderosa*) are located on drier south and east facing slopes, while Douglas-fir (*Pseudotsuga menziesii*) dominated communities are found on north and west facing slopes that are usually wetter. These ridgelines also contain areas of rocky outcroppings that generally contain very sparse vegetation.

The central valley through the management area contains Meyer's Gulch as well as a relatively diverse population of plants and plant alliances. The uplands of this area are dominated by forest and woodland alliances of ponderosa pine or Douglas-fir largely depending again on the water available on that particular slope. The southern part of Meyer's Gulch, impacted by the Eldorado Canyon Fire is dominated by the Ponderosa Pine Tallgrass Savannah Herbaceous Alliance which is characterized by widely spaced ponderosa pine intermixed with a healthy understory component that is dominated by grasses. A large clone of aspen (*Populus tremuloides*), identified as the Quaking Aspen Forest Alliance, is located in the north central portion of Meyer's Gulch. This alliance was naturally occurring on the site, but management efforts by BCPOS increased the size of the alliance after the action was approved in the first management plan. The Foothills Ponderosa Pine Tallgrass Savannah Alliance areas contain the significant plant communities of concern: *Pinus ponderosa/Leucopoa kingii* Woodland (G3S3), *Pinus*

ponderosa/Schizachyrium scoparium Woodland (G3S1), and *Pinus ponderosa/Muhlenbergia montana* Woodland (G4S2). The largest representatives of these communities are mostly found around the shelter at the Meyers trailhead.

Wetland and Riparian Areas

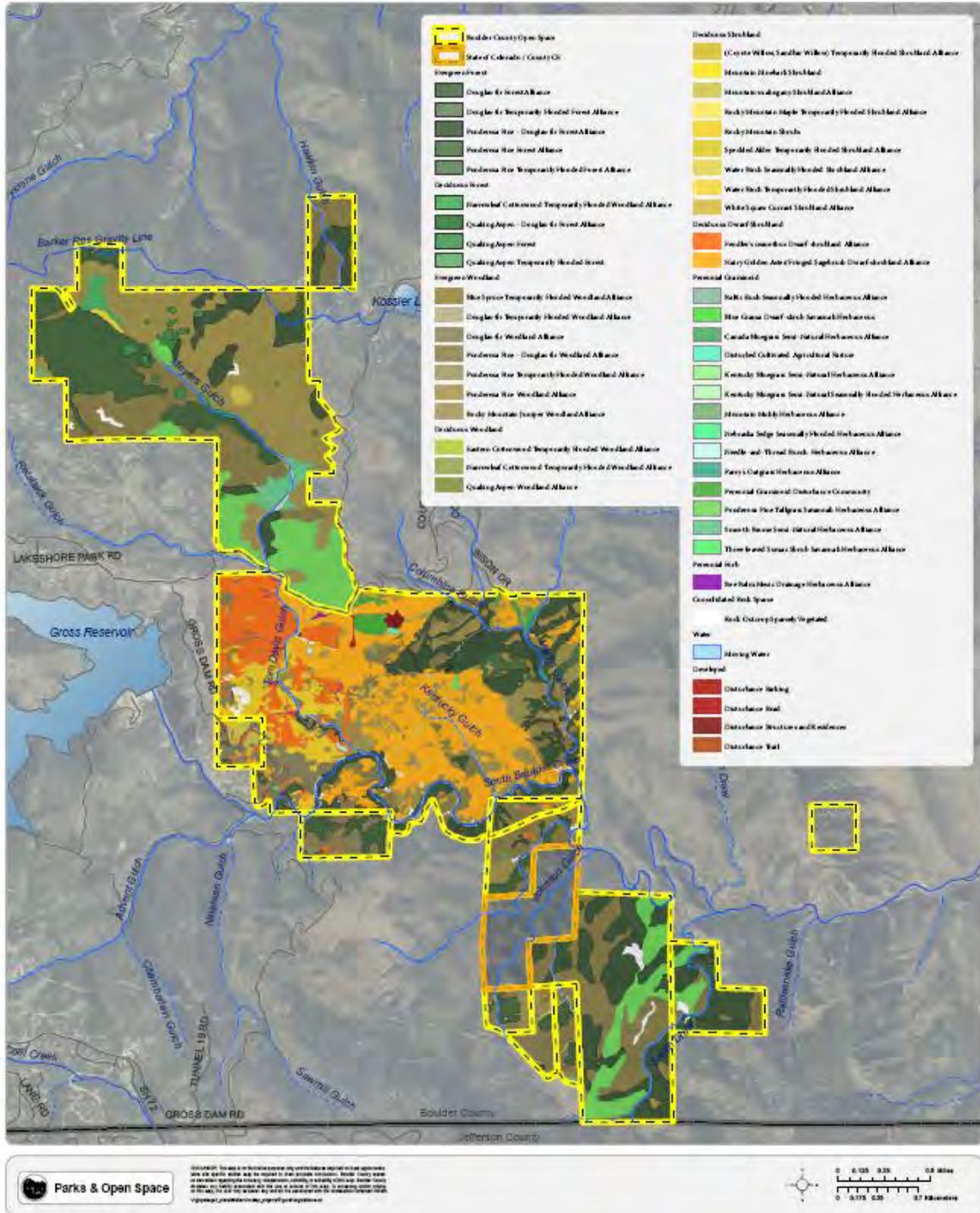
The two most substantial ephemeral streams on Meyers Ranch are Meyer's Gulch and Hawkin Gulch. Meyers Gulch drains to the southwest and contributes water to South Boulder Creek. Meyer's Gulch itself is dominated by vegetation alliances which can tolerate and thrive in flooded or temporarily flooded conditions. These include alliances still dominated by Ponderosa and Douglas-fir, but much of the vegetation along the creek is dominated by small trees or shrubs such as the speckled alder (*Alnus incana* subsp *tenuifolia*) and river birch (*Betula fontinalis*).

The most significant plant communities found along this drainage are the water birch community and the speckled alder community. The water birch community is located at the very top of the gulch. This community was classified under the USNVC system as a Water Birch Temporarily Flooded Shrubland Alliance. This alliance is a rare community as ranked by CNHP as (G3S2). The speckled alder community is found in the southern end of the drainage near Flagstaff Road. This community was classified as the Speckled Alder Temporarily Flooded Shrubland Alliance and this community is ranked by CNHP as (G3S3). Both of these communities were previously identified in the Wright Water Engineers wetland survey. There are two springs identified on the property that have obligate wetland species including sedges, rushes and iris.

Hawkin Gulch flows from the top edge of the east portion of Meyers Ranch down to the North to Boulder Creek. The plant community of significance along the drainage includes Douglas fir, narrowleaf cottonwoods (*Populus angustifolia*), alder, birch, mountain maple (*Acer glabrum*) and aspen. Under the USNVC system this community was classified as Douglas-fir Temporarily Flooded Shrubland. The CNHP program would likely place this under the Montane Riparian Forest that is ranked (G3S3).

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Figure 6: Vegetation Alliances Map



2.2.3.2 The Central Ranch

The largest area within Walker Ranch is the management area identified as the Central Ranch. This area includes the Walker Ranch Homestead, South Boulder Creek, Tom Davis Gulch, and much of the Walker Loop Trail. The area is dominated by an east-west ridge in the north central portion of the property generally south of the Walker Ranch Homestead, Castle Rock on the western edge of the area, South Boulder Creek and the steep slopes on either side of the Creek, and numerous drainages on the eastern edge of the property.

The north-central part of the Central Ranch is the most altered by human use. This is the location of the Walker Loop parking lot, the Walker Ranch Homestead, and formerly cultivated fields and pastureland. This area is treated regularly to reduce weed pressure and is managed to maintain the feel of a more altered landscape. Much of the former pasture is, however, composed of native shrubs, grasses and forb species that are dominate in a Hairy Golden Aster (*Heterotheca villosa*)/Fringed Sagebrush (*Artemisia fridgida*) Dwarf-shrubland Alliance. While the main management practice in the area is weed control, some seeding has occurred in the past near the homestead.

The ridgeline south of the Homestead is similar to other ridges at this elevation with the same wet side/dry-side split between Douglas-fir and ponderosa pine dominated communities. The exact mix of species may differ from area to area depending on many factors. Some areas have been impacted by BCPOS forestry management working to reduce the impact of possible wildfire on the northern side of the ridge. The south-facing slopes of this main ridge were impacted by the Eldorado Canyon Fire. Restoration efforts reduced the possibility of erosion and while weeds are present, the area is predominately covered by the Hairy Golden Aster/Fringed Sagebrush Dwarf-shrubland alliance.

The western side of the Central Ranch management area is separated from the rest of the Central Ranch by Tom Davis Gulch which joins with Meyer's Gulch before flowing through the Central Ranch down to South Boulder Creek. This area was impacted by the Eldorado Canyon Fire and has significant areas of rock outcroppings associated with Castle Rock. The dominant communities outside of Tom Davis Gulch are Rocky Mountain Shrubs Alliance and the Buckbrush (*Fendler's ceanothus*) Dwarf-shrubland Alliance. Tom Davis Gulch itself has been identified as a vital resource protection area because of the plant species present. The alliances present are similar to those found along Meyer's Gulch in that they endure seasonal flooding and are thus adapted to those conditions. The Water Birch seasonally and, Coyote Willow (*Salix exigua*) Temporarily Flooded Shrubland Alliances dominate.

The Central Ranch's eastern edge abuts City of Boulder Open Space and Mountain Parks land. The eastern edge of the property is largely defined by an oil and gas service road, but just west of this road are a series of wooded slopes with a number of small drainages connecting to South Boulder Creek. These drainages are heavily wooded with ponderosa pine-dominated alliances.

South Boulder Creek has carved a steep canyon into the southern edge of the Central Ranch management area. While much of this area is rocky cliffs, ponderosa pine dominated alliances

predominate. There are a few areas along the creek bottom that provide habitat for the Water Birch Seasonally Flooded Shrubland Alliance.

Wetlands and Riparian Areas Central Walker Ranch

The wetlands and riparian areas are generally composed of trees, shrubs, and understory vegetation commonly found at these elevation levels. The most significant wetlands on Walker Ranch are associated with the perennial and ephemeral streams and drainages. There are four areas identified as springs that are small wetland areas. There is a significant seep that drains from the homestead area to the northeast.

The riparian communities found along the creeks and drainages at Walker Ranch Open Space are of relatively high quality. The major perennial stream on the property is Boulder Creek. The riparian vegetation associated with Boulder Creek is of good quality but may lack the diversity and dynamics of plants associated with scour and deposition that would occur in an un-dammed river. There are some sections of the river on the Walker property that include water birch, cottonwoods and coyote willow. These areas are important for their species composition and contribution to the diversity of the vegetation all along the riparian areas of the property. The riparian communities that include narrowleaf cottonwood (*Populus angustifolia*) and shrubs such as water birch and alder are considered vulnerable locally and globally (G2S2). A larger portion of the river vegetation is characterized by spruce (*Picea* sp.) - douglasfir communities with mountain maple (*Acer glabrum*), alder, currant (*Ribes* sp.), and chokecherry (*Padus virginiana*) (G3S3).

The major gulches on the property are: Tom Davis Gulch, Martin Gulch and Kentucky Gulch. These drainages or gulches contain important sensitive plant species and plant communities. The Colorado Natural Heritage Program (CNHP) ranks the lower montane riparian shrublands that have the species found on Walker Ranch such as alder, birch, and red osier dogwood (*Swida sericea*) as critically imperiled locally (S1) to vulnerable to extirpation (G3S3) across all their range. Also present on the property is beaked hazelnut (*Corylus cornuta*). The riparian community that is defined by beaked hazelnut is ranked by CNHP as vulnerable globally and imperiled locally (G3S1). The beaked hazelnut and two herbaceous species; wild sarsaparilla (*Aralia nudicaulis*) and snakeroot (*Sanicula marilandica*) are usually found together, all three of these species are considered to be relictual eastern woodland species.

The most significant wetland that drains towards Columbine Gulch from the homestead is identified as a Nebraska sedge wetland (*Carex nebrascensis*) community. This is the largest wetland identified in the vegetation surveys on the Central Ranch that is not associated with the riparian corridors. There is a spring identified inside the homestead area that may be contributing to the development of this wetland.

The 2000 Eldorado Fire impacted much of the central portion of Walker Ranch and the southern end of Meyer's Ranch. In these areas the fire affected most of the Tom Davis gulch drainage. Most of the drainage has recovered to a Seasonally Flooded Water Birch Alliance with sections that would be

characterized as Coyote Willow Temporarily Flooded Alliance. The dominant community of water birch is a significant community because it is considered rare globally and very rare in the state. The Colorado Natural Heritage Program ranks this alliance or community as G3S1.

2.2.3.3 BLM South

The five properties that make up the BLM South management area are separated from the rest of Walker Ranch by the Crescent Meadows area of Eldorado Canyon State Park. These properties are also remote from public access and have not seen regular use since mining occurred in the area. The property consists of a number of ridges and drainages generally trending north-south and draining into South Boulder Creek west of the Town of Eldorado.

The majority of acreage on these properties consists of woodland or forested alliances of ponderosa pine and Douglas-fir depending on aspect and soil moisture. There are, however, significant areas of Ponderosa Pine Tallgrass Savannah Herbaceous Alliance which has a more open look and a mix of trees and grasses. The drainage bottoms are, again, dominated by alliances that tolerate temporary and seasonal flooding. These drainages contain the same important and uncommon plant species and plant communities found on the Walker and Meyers Ranch portions of the property.

Wetlands and Riparian Areas of BLM South

There are four gulches on BLM South, two are unnamed gulches and the other two are Johnson Gulch and South Draw. These drainages have similar species and plant communities as were found on the Central Ranch. The 2010 vegetation survey of the Stone and Rice properties characterized the Johnson Gulch as a Rocky Mountain Maple (*Acer glabrum*) Temporarily Flooded Shrubland Alliance. This drainage also had narrowleaf cottonwood (*Populus angustifolia*), riverbirch, red osier dogwood and hazelnut. This combination of species makes this drainage unique in the County and important for preservation. The South Draw drainage is also an ephemeral drainage. This drainage was identified as a Narrowleaf Cottonwood Temporarily Flooded Woodland Alliance. This drainage also has an important riparian associated box-elder (*Negundo aceroides*) and plains cottonwood (*Populus deltoides*) the important shrub species such as hazelnut, maple, beaked willow (*Salix bebbiana*) are also present. The CNHP rankings of narrowleaf cottonwood communities places them in the vulnerable globally and locally range.

There were no wetlands not associated with the riparian areas identified in our vegetation surveys on this complex of properties that are lumped into the BLM South area of this management plan.

2.2.4 SPECIAL STATUS SPECIES

2.2.4.1.1 Federally Listed Species

Boulder County has known populations of two federally listed plant species, Ute ladies' tresses (*Spiranthes diluvialis* Sheviak) and Colorado butterfly plant (*Gaura neomexicana* var. *coloradensis*).

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There are currently no known occurrences of federally listed plant species on the Walker Ranch properties.

There is one plant species currently listed as a candidate for federal listing Rocky Mountain monkeyflower (*Mimulus gemmiparus*). The Walker Ranch property is close to the lowest elevation range of monkeyflower and may have habitat that supports this species. There are no known observations of this species being present on BCPOS lands.

NOTE: Describe federal listed species found or potentially found in planning area.

2.2.4.1.2 Species of County Concern

Boulder County Parks and Open Space recognizes all Federally Listed and protected species. The County is currently working on creating a list of plant species of special concern. The ranking and rating of these species is currently in development. The basis for the creation of our species list will recognize the Nature Serve and The Colorado Natural Heritage Programs ranking system. Plant Communities of Special Concern included here is a list of a five sensitive plant communities found at Walker Ranch, this list is in no way a complete representation of the possible sensitive communities located at Walker Ranch.

1. *Pinus ponderosa/Leucopoa kingii* (ponderosa pine/spike fescue) Woodland (G3S3)
2. *Pinus ponderosa/Schizachyrium scoparium* (ponderosa pine/little bluestem) Woodland(G3S1)
3. *Pinus ponderosa/Muhlenbergia montana* (ponderosa pine/mountain muhly) Woodland (G4S2)
4. *Betula occidentalis* ssp. *fontinalis* (water birch)Temporarily Flooded Shrublands (G3S1)
5. *Populus angustifolia-Pseudotsuga menziesii* (narrowleaf cottonwood/douglas fir) Woodland G3S2.

2.2.5 WEEDS AND WEED MANAGEMENT

Weeds are actively managed at Walker Ranch. Using a combination of mechanical and chemical management techniques, BCPOS staff follows the Weed Management Policy adopted by the County Commissioners in 2006. Weed management at Walker Ranch is in accordance with Colorado law regarding the eradication of specific weed species.

The only 'List A' species at Walker Ranch is Myrtle spurge. 'List A' species are those that are identified by the State of Colorado as posing a significant threat to the natural ecosystem as an invasive noxious weed. Myrtle spurge is managed using both chemical and mechanical techniques.

Canada thistle, Musk thistle, Dalmatian toadflax, hounds tongue, leafy spurge and common mullein are the 'List B' species at Walker Ranch. These species are identified by the State of Colorado but immediate eradication is not required. However, Boulder County works to eradicate these species as soon as possible in order to promote and improve habitats for native plants and wildlife.

The management direction for weeds is to continue to work with neighbors, the state of Colorado, and volunteers to remove weeds and reduce weed pressure at Walker Ranch.

2.2.6 WILDLIFE

The diversity of habitat types within Walker Ranch provides for use by a wide range of wildlife. Whether the wildlife stays year round, migrates, nests, or feeds at Walker, the goal of wildlife management at Walker Ranch is to maintain a park that supports diverse and stable wildlife populations.

Important data regarding wildlife at Walker Ranch has been gathered from three main sources:

- 1) Boulder County Parks and Open Space employs wildlife biologists who provide input in support of wildlife resources by conducting research and making management recommendations.
- 2) Earthwork Conservation Planning also conducted assessments focused on locating and describing areas of importance for wildlife species on the property.
- 3) The final resource for this project was the work done by the Colorado Natural Heritage Program in identifying areas throughout the county with high wildlife resource value.

The information provided by these studies has led to an increased understanding of habitat values at Walker Ranch. Specific areas have been designated as having high resource value, therefore requiring increased protection. In other cases, BCPOS believes that recreational uses can coexist with wildlife resources when managed appropriately. Later in this document management designations and management prescriptions for these areas will be described in detail. A map of these areas can be found in Figure 7: Wildlife.

2.2.7 GENERAL WILDLIFE

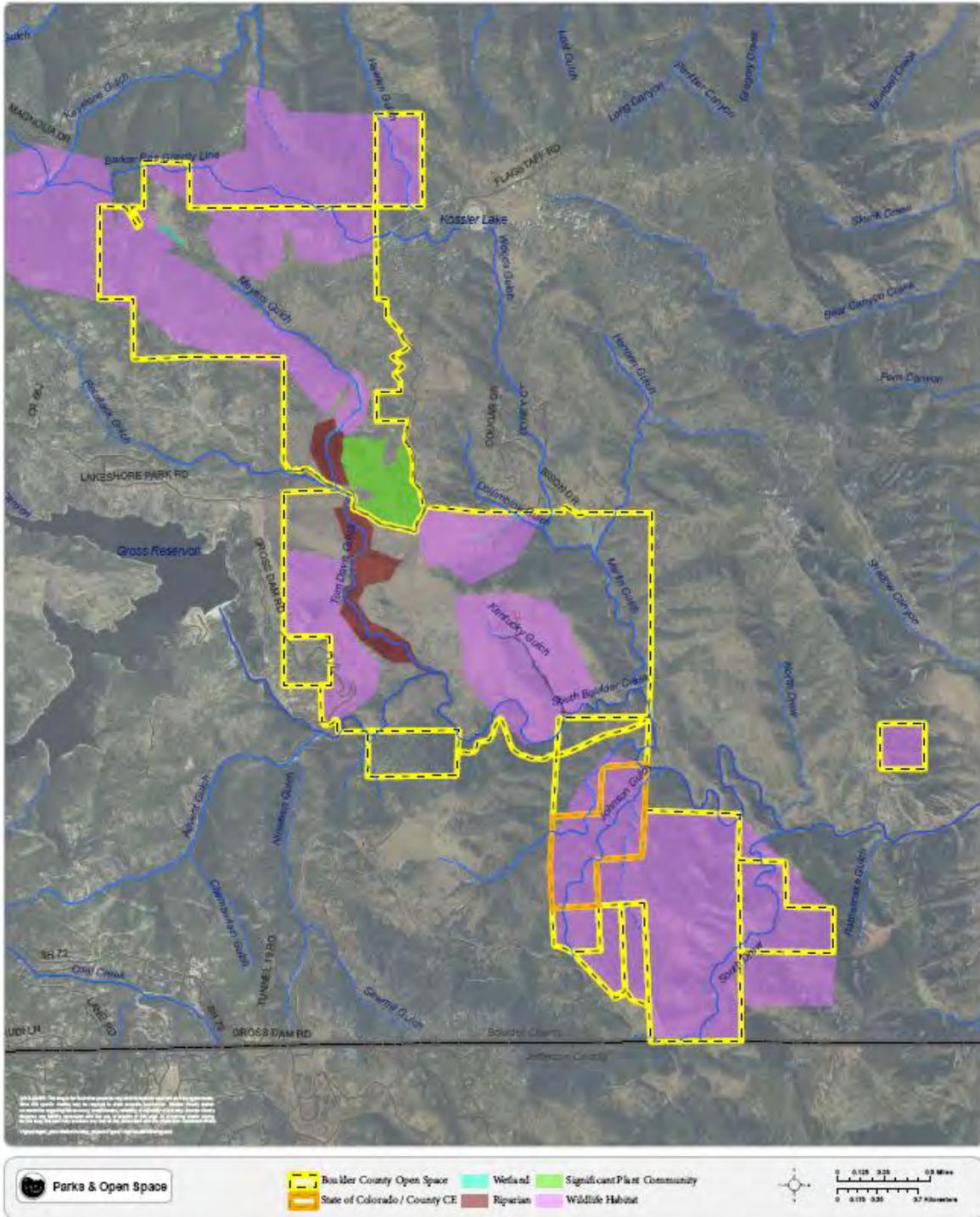
Varied landscape features, large size and continuity with adjoining public lands contribute to the high habitat effectiveness found at Walker Ranch. Many species of wildlife utilize Walker Ranch, including 33 documented mammal species, 112 documented bird species, 5 documented reptiles, 1 amphibian species, and 79 invertebrates (butterfly species).

Wildlife surveys and observations made over many years contribute to an understanding of how wildlife uses Walker Ranch. The following section highlights wildlife use by Management Area.

Walker Ranch Management Plan

Walker Ranch Management Plan

Figure 7: High Value Wildlife & Vegetation Area Map



2.2.7.1 Meyer's Gulch

The entirety of the Meyer's Gulch area contains valuable habitat for a variety of wildlife species due to prominent ridgelines, varied aspects, year-round water, and a mosaic of plant communities and structure. Additionally, Meyer's Gulch provides vital continuity of connections to adjoining habitat for migratory or large-ranging species. As an example, the elk herd that consistently utilizes Walker Ranch for winter range is dependent on accessing via the north areas of Meyer's Gulch. This is due to large landscape features that limit movement from the west, including residential development, and Gross Dam Reservoir. This herd (Winiger Ridge herd) consistently ranges from higher elevations in the summer (as far west as Indian Peaks Wilderness) to the lower elevation range within Walker Ranch, for critical winter foraging.

Meyer's southern ridge contains habitat that supports rare species such as Olive-sided flycatcher, as well as uncommon species like golden crowned kinglets. The northeast facing slope has a complex mixture of conifer species and shrubs, as well as significant downed woody material. These features create excellent habitat for uncommon species such as dusky grouse and provide structure for small rodents. In addition, this area's dense forest stands are vital for visual cover, thermal cover and the movement corridor for elk as well as other large mammals.

The riparian areas of Meyer's Gulch and Tom Davis Gulch provide important habitat for mammals, birds, and reptiles. Maintaining the integrity of the habitat in and around the gulches is important to maintaining wildlife populations and diversity at Walker Ranch. The northern end of the riparian area of Meyer's Gulch contains an area of wetter soils and variable aspects which promotes multi-layered vegetation structure. This, in turn, provides breeding and nesting habitat for birds such as long-eared owl and sharp-shinned hawk. The lower reaches of Meyer's Gulch join Tom Davis Gulch to provide a riparian travel corridor as well as protected habitat that differs greatly from the surrounding landscape that was affected by the Eldorado Canyon Fire. In 2007, Preble's meadow jumping mouse was confirmed in the Gulch representing the highest elevation record of this species, and denoting high habitat quality. Additionally, smooth green snakes have been observed nearby this area. This species is rare in Boulder County, with isolated or restricted populations.

The northern area of Meyer's Gulch contains large stands of aspen. Aspen associated species such as red-naped sapsuckers utilize these large stands. Also, in this area, there is a year-round spring which is vital to wildlife.

Hawkin's Gulch flows through the northernmost portion of the Meyer's Gulch area. It is rugged and relatively isolated from human disturbance. It is mainly surrounded by publically owned lands (OSMP and USFS) so is part of a larger block of effective habitat. It contains excellent riparian habitat that supports many species of birds, including goshawks which use the area as part of a probable territorial range (nesting and foraging).

2.2.7.2 Central Ranch

Historically, the Central Ranch area is where the majority of the activities associated with the active ranch occurred, including logging and mining. The Walker homestead itself was situated in the large, open, montane meadow due to the flat topography and sheltered nature. These same aspects make this area highly suitable for use by many wildlife species including elk, and it is designated as an Elk Winter Concentration Area. In addition, it provides habitat for elk calving. It also provides important features for species such as mountain bluebirds which utilize higher elevation, open habitat for foraging. Further, the rocky outcrops directly south of the homestead provides isolated perching and resting areas associated with the Castle Rock prairie falcons (see below).

Castle Rock, a large granitic outcrop, which is situated to the west of the homestead area, provides nesting habitat for prairie falcons, and roosting for golden eagles. Also in this general area, another granitic outcrop, Langridge dyke, is an important area for butterflies. Historic occurrence records for Townsends big-eared bats exist for Langridge dyke as well.

Between Castle Rock and Langridge dyke, Tom Davis gulch provides a riparian travel corridor and water access. The importance of this corridor is heightened due to the effects of the Eldorado Fire decreasing vegetative cover available in the surrounding area. Additionally, in 2007, Preble's meadow jumping mouse was confirmed in this gulch, which represents the highest elevational record for this species. It also attests to the habitat value within the gulch. Several species of raptors have been confirmed nesting in the gulch, as well.

South of the Walker Homestead area is the part of Walker Ranch that has essentially been converted to montane parkland by the Eldorado Canyon fire. This recently converted area now provides a mix of grasses, shrubs, forbs and cavity trees (snags). It is in part, designated as an Elk Winter Concentration Area, and also provides ample opportunities for cavity nesters. Additionally, olive-sided flycatchers have been confirmed nesting in the area, and along with the nesting in Meyers Gulch represents two of the four known nesting sites in Boulder County. The area contains a mixture of upland grassland habitats interspersed with several drainages that still contain excellent riparian conditions, including fruit-bearing shrubs. Due to the amount of foraging opportunities provided by the drainages, the area is designated as a black bear high density area.

2.2.7.3 BLM South

Due to its isolation and remoteness, BLM South provides excellent effective habitat for many species of birds and wide-ranging mammals. It contains areas of habitat juxtaposition such as riparian corridors, north-facing/south-facing slopes, as well as a long section of Boulder Creek. The extreme terrain shows very little evidence of historic or current human presence, and thus represents a large block of undisturbed habitat. Given its close proximity to urban areas, it is highly unusual and valuable in this context.

Specific species determined to be present within the BLM South Conservation Area during survey efforts include two newly discovered golden eagle nests. The fact that one nesting pair was undiscovered until

2011, underscores the isolated and undisturbed nature of the area in general. Additionally, the recent discovery of an alternate nesting site used by a separate pair of golden eagles illustrates the continuing importance of maintaining suitable habitat in a condition conducive to wildlife.

2.2.7.4 Aquatic Resources

A stretch of approximately 3.5 miles of South Boulder Creek flows through the south central portion of Walker Ranch. This area supports a recreational trout fishery with four points of access. The in-stream structure and complexity of the stream, along with relatively easy access make it popular with anglers. Rainbow trout (*Oncorhynchus mykiss*) and brown trout (*Salmo trutta*) dominate the stream.

2.2.7.5 Special Status Species

Walker Ranch is home to a variety of wildlife species that are considered as being “special status species” at the Federal, State, or local level. The list in Appendix F includes status species that have been identified on the property. Appendix F identifies all species documented on the property via baseline monitoring, site visits, remote camera detections and documented incidental observations.

2.2.8 WILDLIFE LINKAGES AND CORRIDORS

Habitat fragmentation resulting from increased human activities in natural areas poses challenges to wildlife when movement corridors providing connectivity to core habitat is disturbed.

Corridors are linear landscape elements that connect two or more patches of natural habitat and function to facilitate movement (Soule’ and Gilpin 1991).

Maintaining viable populations of a species depends on the ability of that species to move unimpeded throughout habitat types which provide resources for their survival through all seasons.

Walker Ranch is situated in such a way that it provides a vital movement corridor for the Winiger Ridge Elk herd and other large mammals. Specifically, the area west of the Meyer’s Gulch trail is essential in that elsewhere, movement is restricted to the north by Magnolia Road and Boulder Creek and to the south by Gross Reservoir and housing developments. Keeping this corridor open is key, as it allows access to elk winter concentration areas, as well as severe winter range*, located at the meadow surrounding the Walker Ranch homestead.

- Severe Winter Range is defined by CPW as “that part of the range of a species where 90 percent of the individuals are located when the annual snowpack is at its maximum and/or temperatures are at a minimum in the two worst winter out of ten” (NDIS 2008).

At a smaller scale, several other areas within Walker Ranch provide important linkages for wildlife species. The Tom Davis Gulch area provides excellent habitat, but also visual cover that facilitates animal movement through an area heavily impacted by the Eldorado Canyon fire. Additionally, areas around South Boulder Creek, including Kentucky Gulch and Chokecherry Gulch have high value for both movement and forage opportunities for a high concentration of black bears.

2.3 ECOSYSTEMS MANAGEMENT DIRECTION

The natural systems that make Walker Ranch a popular place to visit also make it vital to conserve and study. The management direction for ecosystems is to continue to monitor and study the natural systems at Walker and to work with other divisions and the public to protect resources in the long term.

Boulder County Parks and Open Space takes seriously its obligation to protect the natural systems on our properties and to provide habitat for animals that may move across our properties. While much of this protection can be provided through careful decision-making involving our staff, it is important to recognize the vital importance of particular species or locations within our parks and develop specific management practices for these species and locations.

The updated Walker Ranch Management Plan calls for two areas to be designated as Conservation Areas. These two locations, Tom Davis Gulch and the BLM South properties contain resources that are vital, fragile, and largely undisturbed. Specific monitoring or management practices are outside the scope of this document. However, these areas are recognized by staff as warranting additional protections within Walker Ranch.

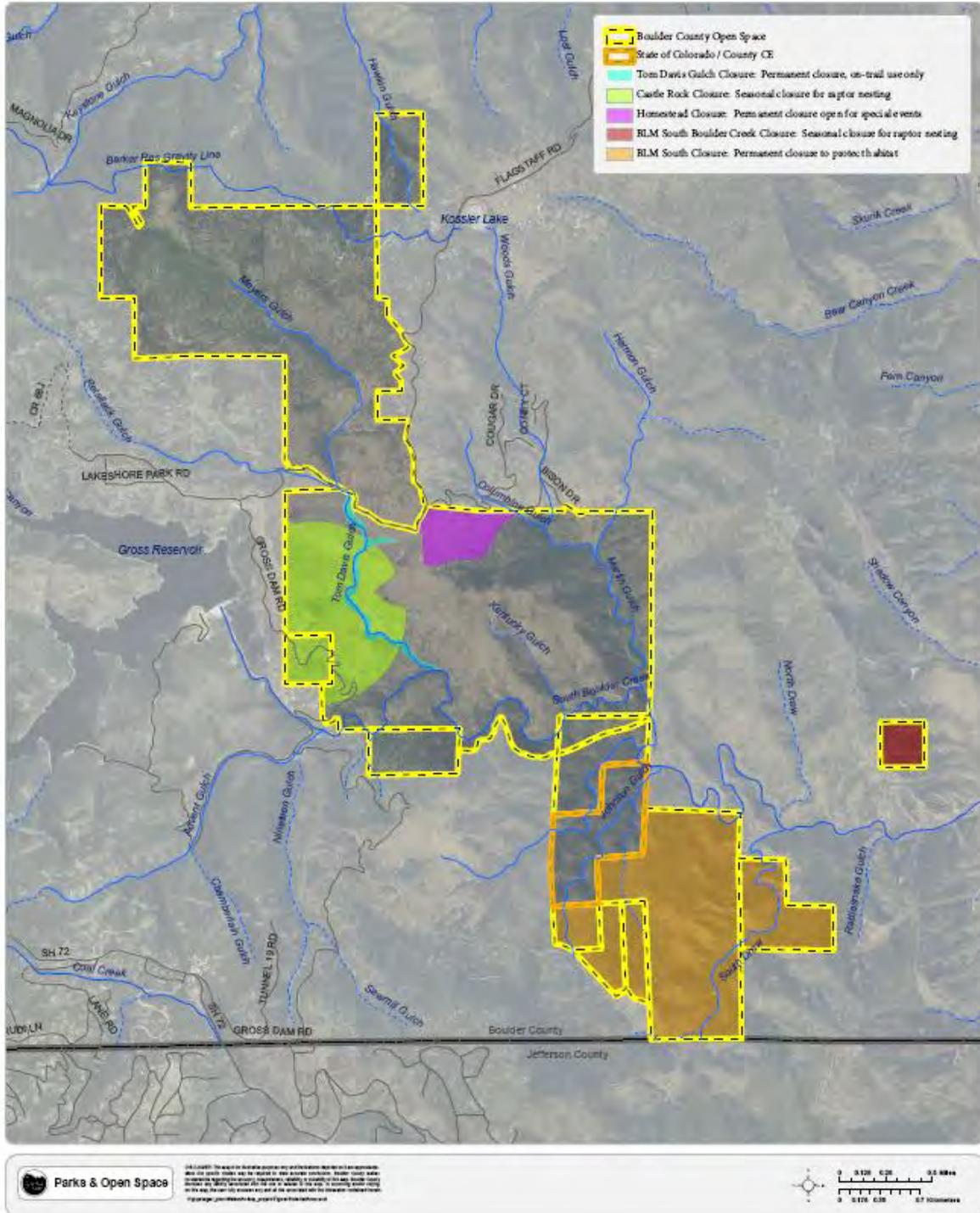
Many areas that play important ecological roles are also popular with visitors to Walker Ranch. Two important birds of prey utilize the Castle Rock formation on the western edge of the Central Ranch area as a nesting and/or roosting site. This area is also of potential interest to climbers as a bouldering location. With the opening of the area previously closed due to safety concerns after the Eldorado Fire, we recognize that climbers may have an interest in accessing Castle Rock. In order to accommodate both, this action will close Castle Rock seasonally for nesting raptors. However if, it is determined that no raptors will be nesting in any given year, the closure will be lifted for that year. If nesting does occur, Castle Rock will be open outside of the breeding season, as outlined by Colorado Parks and Wildlife.

The above procedure will extend to other seasonal closures that may be necessary during the period that this Management Plan is in effect. In order to obtain additional closures, Resource Management and Resource Protection staff must present proposed closures to the Commissioners as part of the annual review and approval process for closures.

Managing the forested areas of Walker Ranch is a good example of the need for adaptive management. There are very few ways to predict changes that might occur to the landscape in the next 15 years. Therefore, actual management may differ significantly from the proposed forestry management on Figure 12. Particular treatments and scheduling will be carried out through the Capital Improvements Plan and in accordance with the Vision for Boulder County Parks and Open Space and in cooperation with surrounding Fire Protection Districts, neighbors, and the Sheriff's Office. The focus of the plan in most areas is to promote and maintain healthy forest stands where a lack of past management has resulted in unsustainable forest conditions. In the area impacted by the Eldorado Fire, management will focus on maintaining the existing grassland and edge habitat. In areas neighboring mountain

Walker Ranch Management Plan

Figure 8: Protected Areas Map



subdivisions, management will focus on minimizing possible fire impacts. One other area of focus is the aspen groves within Meyer's Gulch. In the absence of fire, which is integral to maintaining aspen stands, these stands may be closely managed in order to maintain them in the long term. The area in the northwest corner of Meyer's Gulch is both prime habitat and heavily forested. The plan calls for this area to remain unmanaged in order to maintain habitat in its current condition.

Resource management must be included in all plans to develop recreational, historical preservation, and educational resources at Walker Ranch.

In order to consistently monitor resources, Resource Management in concert with Resource Planning should develop the outline of a consistent monitoring program that can be developed and used in future planning and decision-making efforts.

2.3.1 CONSERVATION AREAS

Walker Ranch's varied landscape features; large size and continuity with adjoining public lands contribute to its high habitat effectiveness. Large, contiguous areas of relatively undisturbed land can encompass (insulate, buffer) several smaller significant habitat features, such as raptor nesting substrate. It also can be essential for the continued presence of species that need large, secluded and unfragmented habitat, such as black bear, elk and mountain lion (Figure 8: Protected Areas).

Two areas within Walker Ranch will be designated as Conservation Areas. Management direction will be to direct human use away from these areas as the goal within a Conservation Area is to limit the possibility of disturbance to sensitive resources.

BLM South Conservation Area: The 1,000 acres of contiguous parcels acquired from the BLM using the R&PPA process represents one of the largest undisturbed landscapes in southern Boulder County. It contains areas of habitat juxtaposition such as riparian corridors, north-facing/south-facing slopes, as well as a long, unaltered tributary of Boulder Creek (South Draw). The area is basically undisturbed, although some mining activity and hunting did occur in the past. The property has been open to the public since BCPOS purchased it, although there is no way to access the property legally as it is surrounded by private property or public lands with restricted access. Its current undisturbed state is rare in the front-range, as developed urban areas exist in close proximity. Extensive staff and Earthworks Consulting LLC surveys have confirmed the area as having significantly high habitat value due to its species richness, and long term isolation. Due to these factors, protecting this area is an important goal of this plan. The proposed BLM South Conservation Area will not be open to public access.

Specific species determined to be present within the BLM South Conservation Area during survey efforts include two newly discovered golden eagle nests. The fact that one nesting pair was undiscovered until 2011, underscores the isolated and undisturbed nature of the area in general. Additionally, the recent discovery of an alternate nesting site used by a separate pair of golden eagles illustrates the continuing importance of maintaining suitable habitat in a condition conducive to wildlife.

Additionally, survey efforts lead to multiple detections of northern goshawks and their nesting structure. Northern goshawk is of federal interest, which, due to evidence of population declines, was under consideration for formal listing under the Endangered Species Act. It is probable that the nest is one of several alternate nests within a territory in the area and currently represents one of the lowest known elevation occurrences of nesting goshawks in Boulder County. Further, mottled duskywing butterflies were located in the BLM South parcel. They are listed as Imperiled in the state by CNHP due to their declining population numbers.

The very rare combination of inaccessibility and very high habitat value which makes this area of great importance is further acknowledged by its multiple designations. It is part of the Hawkin Gulch/Walker Ranch/ Upper Eldorado Canyon ECA and located mostly within the CNHP designated Boulder Foothills Potential Conservation Area. All of the above mentioned factors have led to the proposed conservation area encompassing BLM South to be called the BLM South Conservation Area. The BLM South – Boulder Creek property, east of the BLM South, will be closed seasonally in accordance with CPW guidelines for raptor nesting sites and we will work with our neighboring land management agencies to ensure the closure is enforced as appropriate. Collaboration on BLM South – Boulder Creek may include sharing management responsibilities; allowing patrol and signage installation by representatives of neighboring land managers, or may include land exchanges or agreements to allow for improved management.

While the BLM South parcel is designated a Conservation Area, a regional trail connection between Eldorado Canyon and Walker Ranch could be considered in the area above the railroad grade. This potential alignment is on the perimeter of the property and would not impact significant resource values in the area below the railroad grade.

Tom Davis Gulch Conservation Area: Tom Davis Gulch is a vital drainage through the center of Walker Ranch. The area of Tom Davis Gulch, south of Flagstaff Road was partially burned by the Eldorado Canyon fire in 2000, but recovery within the drainage has been robust. The gulch now provides a vital movement corridor, as much of the surrounding area has been converted to open grass dominated slopes that provide very limited cover. Additionally, the presence of Preble’s Meadow Jumping mouse signifies high quality riparian habitat characteristics, and represents the highest elevation occurrence of this species ever documented. The area to be conserved will be 150 feet on either side of the center of Tom Davis Gulch south of Flagstaff Road.

2.3.2 SUMMARY OF MANAGEMENT RECOMMENDATION

Through public outreach, the staff heard many suggestions for how to manage to protect and preserve habitat at Walker. Some of these suggestions included:

- No dogs allowed off-trail
- Seasonal closures of off-trail areas
- Maintain Eldorado Canyon Fire closure
- Close fire roads to access

Protecting and maintaining healthy ecosystems at Walker Ranch will, in the long run, allow both flora and fauna to flourish. Management of these natural resources focuses mostly on protecting specific

Walker Ranch Management Plan

areas and addressing forest health in particular areas. When possible, BCPOS includes management suggestions from the public. In many cases however, management suggestions may conflict with either management policies or regulations approved by the Board of County Commissioners. Management at Walker Ranch is intended to protect natural resources while encouraging recreation, nature study, and historic preservation.

The Ecosystems Management Direction for Walker Ranch includes the following:

1. Designate BLM South as a Conservation Area. The BLM South Conservation Area would be closed to public access. The closure would reinforce the fact that BLM South is inaccessible to the public, is extremely rugged, and would protect habitat for bears, golden eagles, goshawks and many other species.
2. Designate Tom Davis Gulch as a Conservation Area. Tom Davis Gulch south of Flagstaff Road is densely vegetated and provides habitat for both flora and fauna. While the area would be closed to off-trail use, if a regional trail connector needed to bisect the area, the best location would be determined by POS and approved by POSAC.
3. Institute a seasonal closure of Castle Rock to protect nesting pairs of raptors. The closure would be in effect for the period recommended by Colorado Parks and Wildlife based on the species of raptor present. The closure would be a spatial closure that could include up to a half-mile around Castle Rock.
4. Manage forests based on the specific prescription for Walker Ranch in this plan in keeping with the Forestry Policy of Boulder County Parks and Open Space.
5. Identify weed infestations early and utilize methods approved in the Weed Management Policy to remove weeds and weed infestations at Walker Ranch in order to promote the health of native plant species.
6. Work with volunteers, researchers, and other partners to maintain monitoring programs for various species at Walker Ranch.

2.4 FORESTRY

The majority of the property is in the lower montane life zone. This zone of vegetation is comprised of dominant and co-dominant ponderosa pine and Douglas-fir, depending upon aspect, as well as large openings and meadows. Pure ponderosa pine stands comprised the largest forest type in this life zone, historically. The main characteristic of these forests is a mosaic of clumps of trees interspersed with open meadows and grasslands. The open canopy allowed for the development of an understory below and between trees. This type of forest is typical of warm, dry, exposed sites. Individual trees varied in size from seedlings to mature-old growth within the clumps depending on the amount of time from the last disturbance. Mixed conifer stands grew more densely in areas with more shade and moisture, like canyons and on north-facing slopes. These were more of a closed canopy stand with fewer and smaller openings present and little understory present. The three main components of the life zone, ponderosa pine, Douglas-fir and meadows, changed in arrangement and appearance depending on the frequency and intensity of the disturbance.

Two unique forest components on the property are the large stand of aspen in the north-central portion of Meyer's Gulch and the large area of sub-shrubland that was created by the Eldorado Canyon Fire. They are part of the mosaic on the landscape and are the result of a disturbance driven ecosystem.

Fire was the main disturbance for this life zone. In the southern part of Boulder County, fires would typically burn every 10-30 years. These tended to be more low and moderate severity fires that would consume the surface fuels, remove lower branches and prevent the survival of most seedlings. Higher severity fires did occur on the landscape in this life zone, primarily on northern aspects and areas with higher fuel loadings, but they tended to be small pockets where all vegetation was consumed. These openings created by fire would allow for pulses of tree regeneration and would lead to a multi-age forest structure on the landscape.

The cessation of a natural fire regime coupled with different land management practices, like grazing, logging and mining has resulted in an altered forest structure that is prone to higher intensity, larger and more destructive fires. Soil disturbance has allowed more seedlings to establish at a given time and has resulted in an even-aged forest. The removal of fire has allowed more trees to survive and compete for the same resources, resulting in smaller trees with continuous canopy to the ground and short branches. These changes in forest structure, growth and appearance have also led to changes in fire behavior. The buildup of fuels has raised the potential for more intense fires with negative consequences for the people who live, work and play in the forests of Boulder County.

2.4.1 MEYER'S GULCH

The Meyer's Gulch portion of the property is classic example of the lower montane life zone. The southern, more open part of Meyer's Gulch is dominated by pure ponderosa pine with larger diameters and large meadows of grasses, forbs and shrubs. This area has seen mechanical thinning, tree planting, wildland fire, and insect and disease activity in the past few decades. The east and northern portions of the property have a higher density of ponderosa pine. These are arranged in groups of varying sizes and shapes and are adjacent to openings dominated by grasses, forbs and shrubs. The western portions of the property are more indicative of a dry mixed conifer forest, with Douglas-fir becoming more dominant and upper montane species like lodgepole pine present. This is a dense forest structure with little to no understory present under and between trees. The center of the property is dominated by riparian vegetation with smaller groups of trees interspersed with the larger meadow system.

2.4.2 THE CENTRAL RANCH

This area was the most heavily impacted by the Eldorado Canyon Fire (2000). Most of the forested portions can be found in drainage bottoms, steep, rocky terrain and north facing slopes. The majority of the rest of this portion of the property is now a mosaic of grasses, shrubs; best identified as a sub-shrubland. The exceptions are the areas mentioned previously and the hillside surrounding the Ranch Complex to the south and east. This area is co-dominated by ponderosa pine and Douglas-fir. Tree densities are less where ponderosa pines are more abundant and are greater where Douglas-firs are more prevalent. Thinning projects have occurred on these hillsides for the last 10+ years, targeting mostly smaller diameter trees and ladder fuels.

2.4.3 BLM SOUTH

The southern portion of the property is a more rugged and remote area. Ponderosa pine dominates the ridges and flatter areas on top. The forest structure in these areas is quite varied, from more open grassland with few trees to denser, closed canopy forests. There are several drainages found on this portion of the property. These tend to be dominated by a mixture of ponderosa pine and Douglas-fir, with higher tree densities where resources can support them. This area has seen some past mining activity but for the most part it has seen little disturbance or management.

2.5 FOREST MANAGEMENT STRATEGIES

2.5.1 FOREST RESTORATION

The purpose of these Forest Restoration treatments proposed by BCPOS is to mechanically reduce the density and return the forest structure to conditions present prior to the interruption of a natural fire regime (Figure 12: Forestry Management). Once the structure is in place, the forest can be maintained by episodic prescribed or wildland surface fire. The resulting forest will be uneven in age with large diameter ponderosa pine and Douglas-Fir grouped together with varying numbers and sizes of smaller trees surrounded by small to large openings. The resulting open canopy will allow for native grasses and wildflowers to flourish while at the same time preventing a wildland fire from only moving through the tree canopy.

Most of these types of treatments will take place on the Meyer's Gulch portion of the property. Specific prescriptions will be written for each Project Area based upon inventory data and analysis. A total of 716 acres have been proposed for this treatment type. Depending on how each is implemented, large contractor to internal staff resources, it could take up to 10 years to complete the thinning portion and then potentially another 7-10 years to complete the first round of prescribed fire.

2.5.2 FIRE MITIGATION

The purpose of Fire Mitigation treatments is to alter the anticipated fire behavior within a forest. Often, this type of treatment is referred to as "thin from below". This can be accomplished by removing small diameter trees and limbs that can be vectors for fire to climb into the canopy and result in high severity fire. Fire mitigation treatments only focus on the characteristics of the fuel: arrangement, continuity and loading. They do not focus on overall forest health or any other ecological process. The treatments proposed by BCPOS can vary from 300 ft. wide fuel breaks to simple limbing depending on fire behavior predictions and the proximity to homes. This type of treatment is effective in reducing the likelihood of ignition of a structure up to a point. The structure itself must be mitigated same as any other potential fuel.

The main portion of the property that will see this type of treatment is located along the eastern side of the Meyer's Gulch area. This area is adjacent to Flagstaff Road and the homes that are along it. This specific 97 acre area is targeted because its location is an opportunity to alter the fire behavior of a

wildland fire before it moves off of Boulder County land and onto private land and potentially cutting off one of two main evacuation routes for citizens in the area. Again, depending on the scale of implementation, this treatment would take 1 to 4 years to complete.

2.5.3 ASPEN ENHANCEMENT

The purpose of Aspen Enhancement treatments is to remove encroaching conifer species from established aspen stands as well as to stimulate new growth from existing clones. Aspen forests offer unique habitat and cover for wildlife, well developed understories of native grasses and forbs, and can be a natural fire break for low to moderate intensity wildland fire. The treatments proposed by BCPOS will target all but the largest diameter conifer species for removal.

As mentioned previously, the 94 acre aspen stand located in the north-central portion of Meyer's Gulch will be the focus of this treatment. This area could be treated in 1-3 years.

2.5.4 PRESCRIBED FIRE

The purpose of Prescribed Fire treatments is to maintain forest structure and reduce the amount of available fuel for a wildland fire. A regular disturbance regime that mimics the historic patterns will allow for nutrient cycling, a reduction in ladder fuels and better resiliency in live trees. The treatments proposed by BCPOS will be conducted under specific conditions to meet specific objectives.

This is slightly different than Forest Restoration in that the only action proposed with this type of treatment is the application of fire whereas Forest Restoration is part mechanical thinning and part prescribed fire. The area that this management tool will be utilized is within all the Forest Restoration treatments previously identified as well as the 851 acres of the Central Ranch that are within the Eldorado Canyon Fire perimeter. Forest Restoration prescribed fire will occur at a frequency necessary to re-establish a fire regime, generally 2-3 applications within the first 20 years and then 20-30 years after that for maintenance. Within the Eldorado Canyon Fire perimeter the frequency will depend on specific objectives for that area. If the area is to be maintained as an open meadow comprised of grasses, forbs and shrubs then a general time line would be every 3 to 10 years. A frequency of 20-30 years will be necessary to develop and maintain a successional forest structure.

A prescribed fire plan, in accordance with the Boulder County Parks and Open Space Forest Policy and the Boulder County Fire Management Plan, will be written for specific project areas and approved by the Boulder County Prescribed Fire Interdisciplinary Team prior to implementation. The plan will identify objectives, windows of operation, fire behavior predictions and weather constraints. In addition all relevant open burning and smoke permits will be obtained from the appropriate county and state agencies. The plans will be applicable for 5 years after approval.

2.5.5 FORESTRY MANAGEMENT DIRECTION

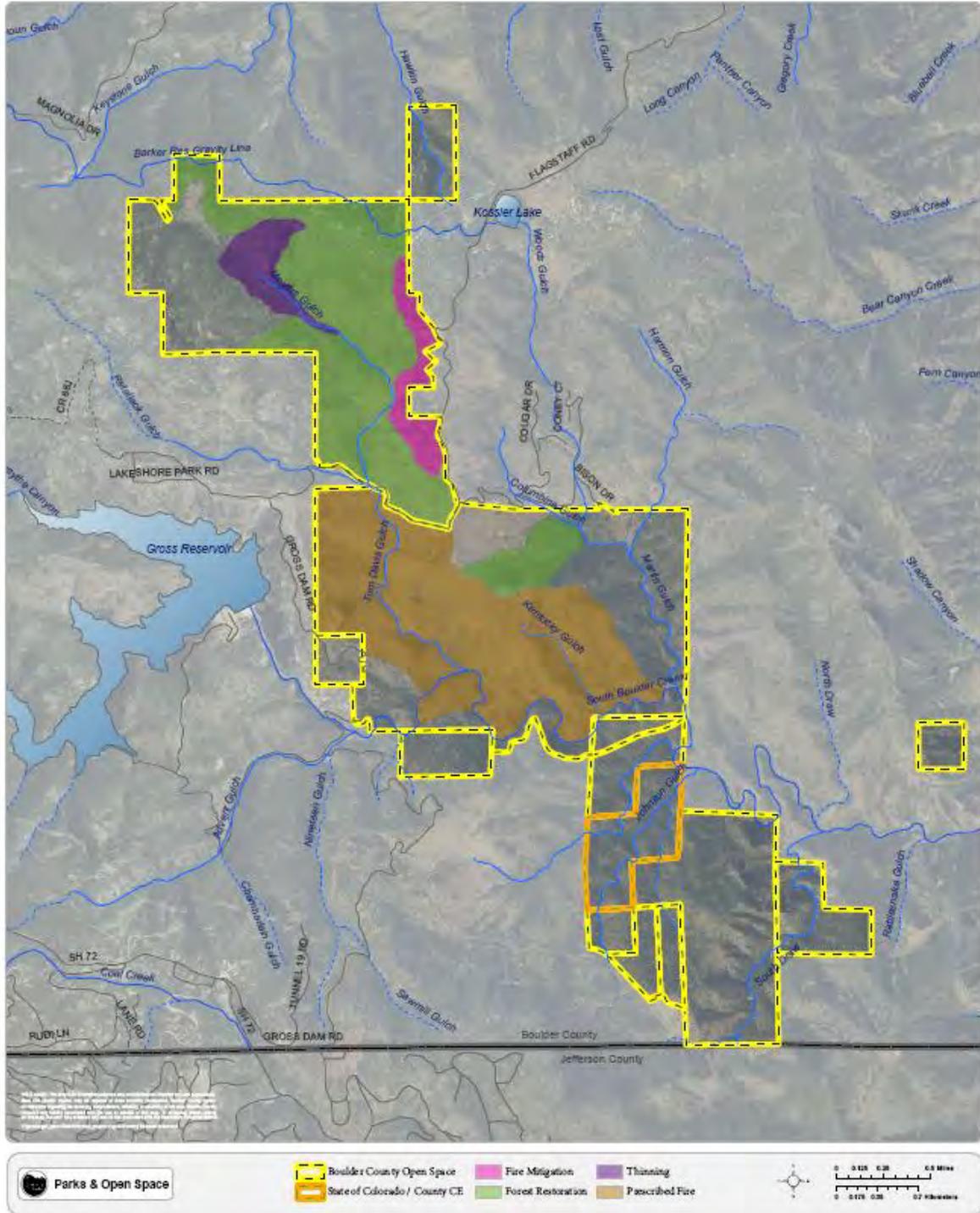
To manage the forested areas of Walker Ranch, BCPOS staff develops prescriptions based on the location and composition of forest stands. Management of particular areas is outlined in Figure 9 and descriptions of treatment methods are outlined above.

Walker Ranch Management Plan

1. Manage forests in accordance with management plan, except in the case of emergencies or shifts in forest health require a realigned prescription for the forested areas at Walker Ranch.
2. Monitor and regularly report on forest health at Walker Ranch.

Walker Ranch Management Plan

Figure 9: Forestry Treatment Areas Map



2.6 CULTURAL RESOURCES

There is significant evidence that the resources of Walker Ranch have been valued by human visitors from prehistory into the present. Prior to European visitation and settlement of Colorado, the lower elevations of the Rocky Mountains provided hunting and fishing grounds for Native Americans. Settlers variously attempted to mine and ranch the landscape of Walker Ranch.

While many visitors to Walker Ranch come to enjoy the ecological and recreational bounty of the Open Space, the cultural resources can also be enjoyed through both casual visits and formal interpretive programs and events at historic sites within the Open Space. Interpretation of these resources should continue in order to connect us to the past along the Front Range.

2.6.1 CULTURAL RESOURCE SURVEYS

Six cultural resource surveys have been completed in the Walker Ranch management plan area to document the historic and prehistoric resources on the properties. On the Walker Ranch property, Gordon and Kranzush, Inc. completed two surveys in 1979 and 1980 totaling over 1,600 acres, followed by the 1987 Engineering-Science Inc. survey of an additional 500 acres. After the September 2000 Eldora Springs fire that burned a portion of Walker Ranch, Native Cultural Resources completed a cultural resource survey in 2001 to investigate the burn area to determine the effects of the fire on cultural resources.

On the BLM South properties, Native Cultural Resources completed a 1,132 acre cultural resource survey in 1988 as a prerequisite to the County's purchase of 25 tracts of land from the Bureau of Land Management.

On the Hawkins Gulch property the Bureau of Land Management completed an 80 acre cultural resource survey in 1988 in response to Boulder County's recreation and public purposes lease of the land.

The Stone, Westphal and Buffalo Park properties have not been surveyed for cultural resources.

2.6.2 PREHISTORIC RESOURCES

Three prehistoric resources were recorded as part of the 1979 and 1980 Gordon and Kranzush surveys. The resources include a lithic scatter site and two isolated finds comprised of a small number of chert and percussion flakes.

In addition to the recorded resources listed above, interviews with the granddaughter of James Walker, Leta Daniels, two additional sites were identified, but no surface artifacts could be found during field work conducted by Gordon and Kranzush. It is likely any remaining artifacts are buried and both sites should be regarded as culturally sensitive and any ground disturbance activity avoided.

2.6.3 EURO AMERICAN HISTORY

Walker Ranch's namesake, James Walker moved to Boulder in 1869 according to some sources (Gladden, personal communication) or in 1865 according to others (Daniels, personal communication). In 1869 he took up residence in a lean-to in Meyer's Gulch and worked as a farmhand and share-farmer in the summer and as a carpenter in Boulder in the winter.

Walker married Phoebe "Fidelia" Skinner in 1876 and filed a homestead claim in the Walker Ranch Area in 1882. William Ely Walker was born in March of 1877 but due to physical damage suffered while giving birth, William and Fidelia lived most of the ensuing years in Boulder. James continued to work Walker Ranch, but in the winter stayed with his family in Boulder. A permanent ranch house was completed in 1882 and became the permanent residence of the Walker family in 1883. After purchasing the Martin homestead in 1884 for \$700, the Walkers continued to expand their operation. By 1885, the Walkers had 150 acres of hay, 50 head of milk cows, and 40 head of beef cattle.

James Walker sold and leased portions of the ranch in 1901 to pay off debts from medical bills and failed business ventures. In 1902, Walker sold the entirety of the ranch to John J. Harris for \$55,000. However, Harris failed to make all the payments and the property reverted to the Walkers.

In 1894 a mining interest offered James \$100,000 for the mineral contact for Walker Ranch. The first installment of that price allowed the Walkers to pay off their debts and introduce Gallaway cattle to the property. The Langridge cyanide mill opened in 1907 but closed just 7 years later.

After the death of both Fidelia (in 1912) and James (1922), Walker Ranch passed down within the Walker family until it was sold in 1959 to Dr. Oliver Taylor. Dr. Taylor subdivided the property and sold the majority of it on to Mountain Valley Associates. In 1977, Boulder County purchased that property from Mountain Valley Associates.

2.6.4 HISTORIC RESOURCES

The historic record of Walker Ranch can be found in the buildings, structures, and historic archaeology sites spread across the Open Space. The cultural resource surveys have recorded 45 resources that document the homesteading, ranching, mining, logging and railroad history on the property. The most visible reminder of the properties ranching history is the homestead complex. Located in an open meadow above Columbine Gulch, the complex consists of 12 buildings and structures documenting the progression the Walker's occupation on the land from homestead to large ranch operation.

After BCPOS acquired Walker Ranch, the staff worked to first stabilize and then preserve the buildings and structures within the homestead complex. Preservation work started in 1984 with the replacement of the Walker Cabin sill logs. Major work ended in 2012 with the construction of a garage in the homestead complex on the site of the original wood shed. While not a reconstruction, the new garage was built to meet the caretaker's needs and its exterior appearance is sensitive to the homestead complex historic nature.

The homestead complex was closed to the public at the beginning of the work to protect the buildings from any vandalism and the public from the unsafe conditions that existed at this time. With preservation work complete, the value of the work along with continuing safety concerns, mean that the complex remains closed to the public except for special events.

All work on the property has and will continue to follow the Secretary of the Interior's Standards for the Treatment of Historic Properties. The adoption of these standards contributed to the success of preserving the historic resources as well as consulting with historic preservation experts inside and outside Boulder County government. Skilled BCPOS craftsmen trained in historic preservation techniques complete the work and are dedicated to retaining the historic character of the property.

2,566 acres of the Walker Ranch property is listed in the National Historic Register of Historic Places and the Colorado State Register of Historic Properties for its cultural manifestations and the land representing a chapter in the history of the settlement and expansion of Boulder County and the eastern foothills of the Rocky Mountains.

2.6.5 CULTURAL RESOURCE IMPORTANCE

The cultural resources at Walker Ranch are important for their contributions to our understanding of the past and for the potential to yield important information. Their value is immeasurable and their loss is irreparable. BCPOS staff has preserved all of the major historic buildings and structures in order to maintain their historic physical integrity. In most cases, cultural resource sites related to European settlement and James Walker's homesteading of the property have been signed to warn about the danger of approaching these resources. Prehistoric resource locations are not identified in order to protect the integrity of the site and the artifacts contained therein.

2.7 CULTURAL RESOURCE MANAGEMENT DIRECTION

Two thousand five hundred sixty six acres of the Walker Ranch property are listed in the National Historic Register of Historic Places and the Colorado State Register of Historic Properties. This designation guides many of the management decisions related to the Walker Ranch buildings, structures, landscape, and all of the archaeology resources found on the property. The incredible educational and cultural value of this site requires constant re-evaluation, protection and maintenance. This section focuses on both protecting cultural resources and improving the interpretation of discovered and undiscovered resources at Walker Ranch.

The buildings and structures at Walker Ranch help to tell the story of the early Euro American history of Boulder County, and the western United States. The buildings from the homestead complex to the remnants of mining, milling and lumber operations throughout the property create a strong link to the past. The rural landscape of the property is without intrusions and represents a continuum of land use important to the understanding of cultural patterns in the region. Preserving and interpreting these visual reminders is an important part of the management of Walker Ranch.

There is much more to the history of Walker Ranch than the buildings and structures themselves. There is evidence that this part of Boulder County was home, at least from time to time, to Native Americans long before European settlement. It is clear that identifying and protecting these resources is important to the community.

Cultural Resource management at Walker Ranch will focus on:

1. The site around the homestead should be closed to public access except during department-sponsored tours and events. (Figure 8: Protected Areas)
2. Maintain buildings and structures according to the Secretary of the Interior's Standards for the Treatment of Historic Properties.
3. The surrounding landscape should be maintained to minimize the negative impacts of fire and promote historic context for which the property is significant.
4. Re-evaluate buildings and structure for treatment options.
5. Assess interpretation value and develop a plan if interpretation is determined to be viable.
6. Complete cultural resource surveys for previously un-surveyed properties and conduct a reevaluation of all previously surveyed cultural resources.
7. Develop a strategy to protect and assess interpretation value.
8. Increase cultural resources staff participation with future property development.

2.8 RECREATION OPPORTUNITIES AND VISITOR USE

Most visitors to Walker Ranch come for recreation and to enjoy the natural surroundings. The variety of trail experiences, historic resources, and varied ecosystems provide a wealth of opportunities to enjoy Walker Ranch. This section will cover the different recreational opportunities and facilities available to visitors.

2.8.1 AREA CHARACTER

The three areas within Walker Ranch have taken on specific characters. While this was not planned, it has become habit for many users and many of the management strategies in this plan come from visitors' use patterns. However, it is important to note that this "area character" does not directly preclude alternative uses unless specifically noted in the management direction.

2.8.2 VISITOR SERVICES AND FACILITIES

2.8.2.1 Visitor Safety

Walker Ranch is one of five parks within the Boulder County system that have resident rangers on-site. While the ranger at Walker is not solely responsible for maintaining the park and managing visitor safety, having a ranger on site does improve responsiveness.

The resident ranger lives at the Walker Ranch Homestead and is responsible for regular patrols and for upkeep within the park. Outside of the time that the ranger is tasked with patrolling the park, it is patrolled by other Boulder County Parks and Open Space rangers and Boulder County park deputies.

2.8.2.2 Facilities

In order to clearly delineate the facilities available at Walker Ranch, this section will be divided into the three sections of the park (Figure 9: Existing Facilities).

2.8.2.2.1 Meyer's Gulch:

Trailheads: There is one trailhead at Meyer's Gulch. The Meyer's Gulch Trailhead is located along Flagstaff Road south of the Boy Scout camp. The trailhead has upper and lower parking areas, a trail kiosk, an adjacent picnic shelter, and limited trailer parking.

Trails: There are two trails on the Meyer's Gulch section of Walker Ranch. The 2.6 mile Meyer's Homestead Trail follows a fire road from the trailhead to a viewpoint at the northwest edge of the Walker Ranch property. The trail is multi-use and is heavily used for hiking, walking, equestrian use, and easy mountain biking.

The second trail on Meyer's Gulch connects the Meyer's Gulch trailhead with the Walker Loop trailhead on the Central Ranch portion of the property. This trail is also multi-use and includes interpretive signage describing the impact and importance of fire on the landscape at Walker Ranch.

Buildings: A small barn is located just west of the Meyer's Gulch Trail along Fire Road 2. The barn is not open to the public to protect visitors and the historic resources.

Fire Roads: There are a number of fire roads on Meyer's Gulch. These roads, apart from Fire Road 1, are considered off-trail. Fire Road 1 is the Meyer's Gulch Trail. Fire Roads 2, 3, 4, and 5 intersect with Fire Road 1 and are at various levels of maintenance.

2.8.2.2.2 Central Ranch:

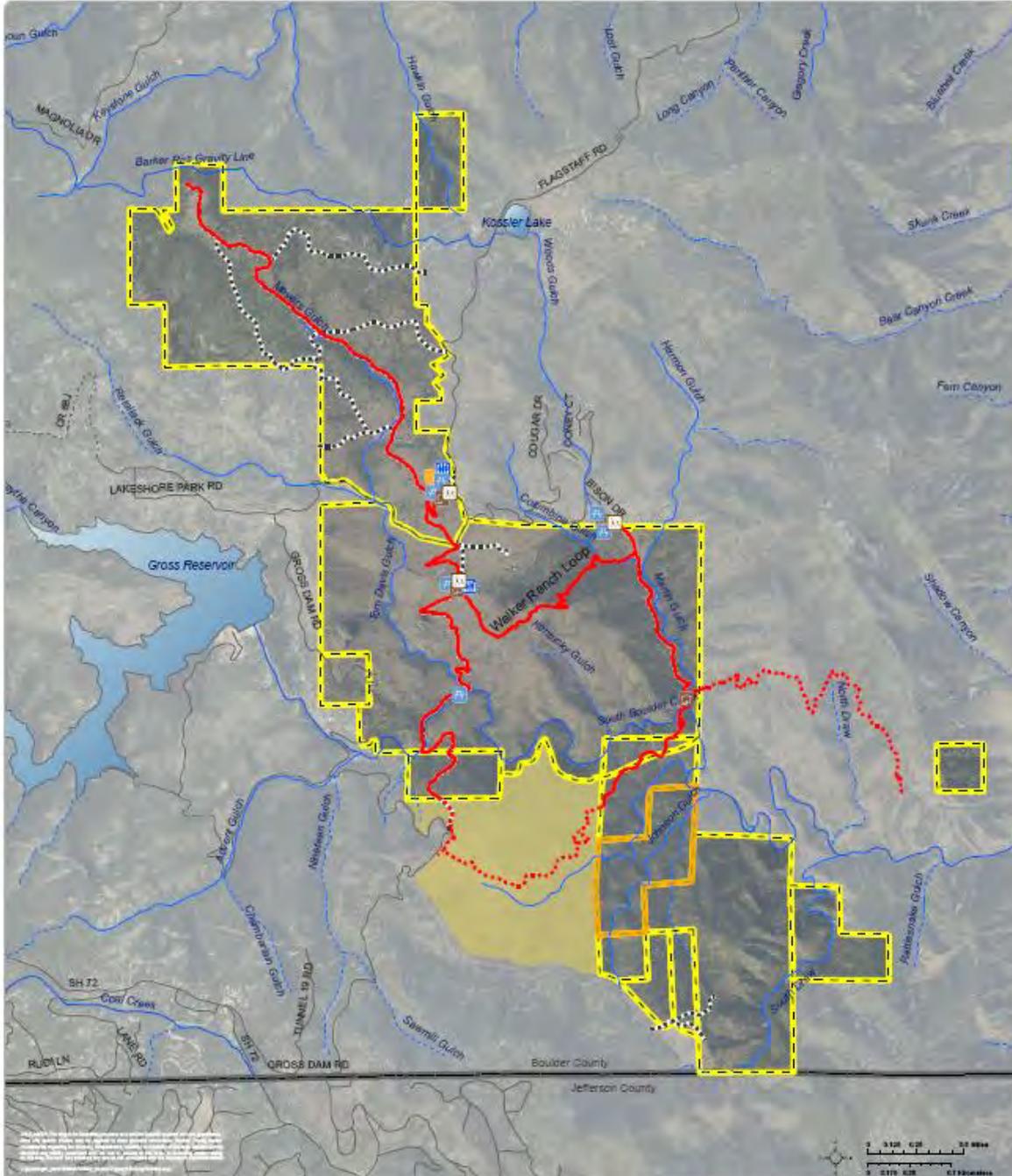
Trailheads: There are two trailheads on the Central Ranch. The Walker Loop Trailhead has 30 parking spaces, a bathroom, an informational kiosk and a small picnic shelter. The trailhead is located off of Flagstaff Road just south of the gate to the Walker Ranch homestead.

The Ethel Harrold Trailhead is located on the northeastern corner of the Central Ranch area of the Open Space. It contains 12 parking spaces, a restroom, picnic tables, and an informational kiosk. The Ethel Harrold trailhead is located off of Bison Drive.

Trails: There is one trail on the Central Ranch section of the property. The Walker Loop Trail is a 7.8 mile loop that circles the property crossing onto a portion of Eldorado Canyon State Park called Crescent Meadows for approximately 1 mile. The trail is multi-use and is used for hiking, walking, equestrian use

Walker Ranch Management Plan

Figure 10: Existing Facilities Map



and advanced mountain bikers, who make up the majority of users of this trail. There is a section of stairs that discourages equestrian use due to the steepness of the section and the use of narrow and short stairs.

Buildings and Structures: The Central Ranch contains the Walker Ranch homestead and associated buildings and structures. This complex has been restored and will continue to be preserved as part of the historic landscape. There are a number of small outbuildings spread across the Central Ranch. These are not open to the public for safety reasons.

Fire Roads: There are two fire roads on the Central Ranch section of the property. The eastern fire road is also a service road for an existing gas pipeline. The second fire road includes the section of the Walker Loop trail that descends north from the Crescent Meadows area of Eldorado Canyon State Park.

2.8.2.2.3 South BLM

The South BLM properties are located to the southeast of the rest of Walker Ranch Open Space. While the BLM South properties are designated as open to the public as of 2012, there is no legal access route to the properties except across the State Park property. Therefore, there are no public facilities on the property.

2.9 TRAILS AND FACILITIES MANAGEMENT DIRECTION

Most visitors to Walker Ranch will experience the park through its trails and facilities. With three trailheads, two major trails, two connector trails, and various picnic areas and benches; Walker Ranch has a lot to offer visitors. This management plan proposes to carry forward the existing recreational features at Walker Ranch while adding some features to enhance the experience and make Walker a part of the larger recreational landscape in Boulder County (Figure 11: Proposed Facilities).

2.9.1 TRAILS

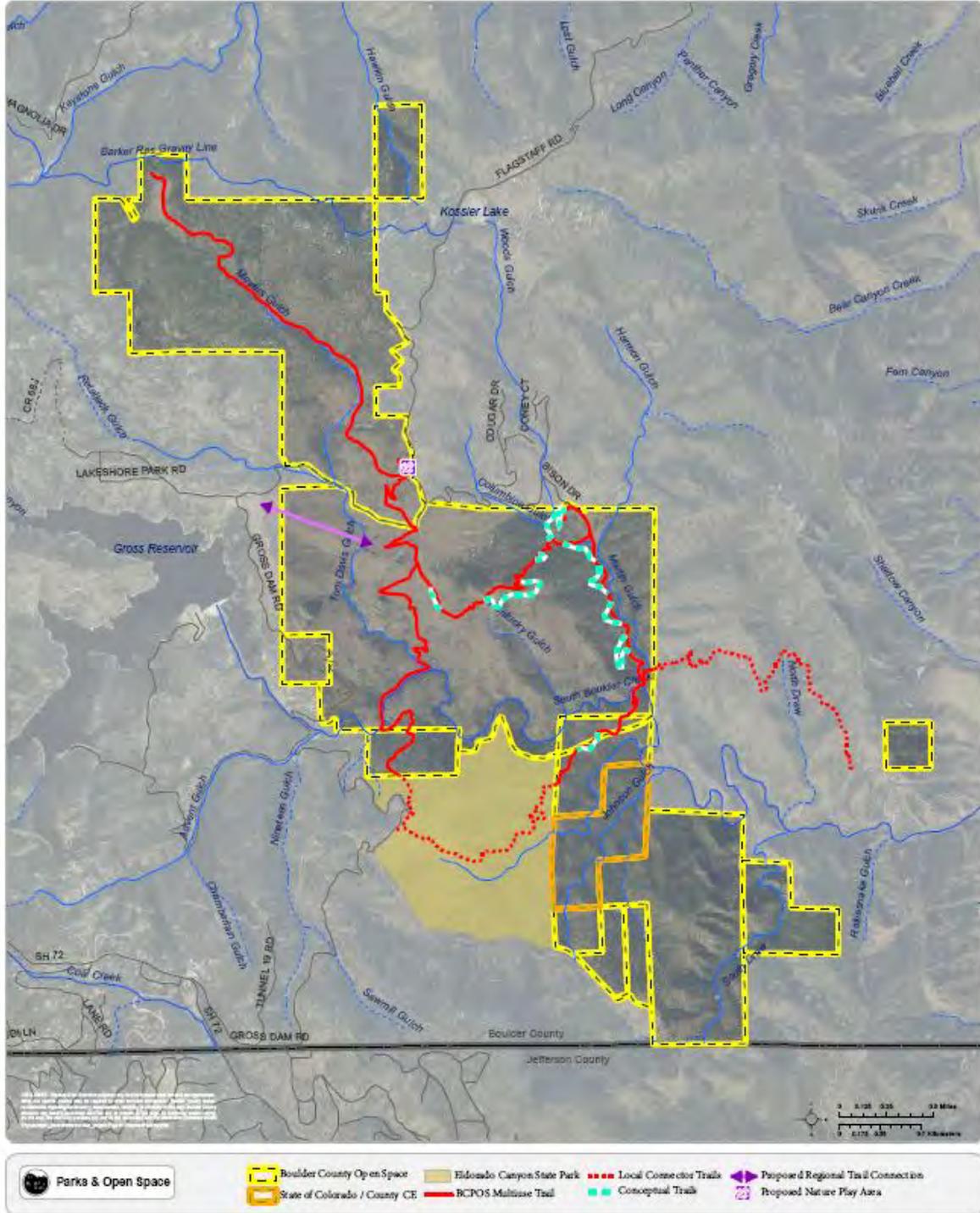
The trail system is extensive at Walker Ranch and based on surveys of park visitors and adjacent landowners, this plan does not call for a significant expansion of the existing trails. In order to address significant erosion and trail tread issues, reroutes on the Walker Loop are planned for the near term.

Reroutes will be carried out through a process of consultation between the Recreation and Facilities team and the Resource Management team. Many of these reroutes will involve volunteer groups and routing may be done in consultation with these volunteer groups in limited circumstances and only after staff approval. Trail realignments are intended to address maintenance concerns and resource damage. Realignments should be carefully planned to maintain the current level of difficulty on the Walker Loop.

The Meyer's Homestead trail tread will be repaired in order to upgrade the road surface for maintenance and resource management such as forestry. The repair of the Meyer's Homestead trail surface may have an impact on access for a short period of time, but the work will result in a smoother tread and improved drainage which will increase the trails longevity and reduce the impact of erosion on Meyer's and Tom Davis Gulch.

Walker Ranch Management Plan

Figure 11: Proposed Facilities Map



Through this plan, staff studied the continuing impact of the closure of much of the Central Ranch property due to the after-effects of the Eldorado Canyon Fire. Based on the intervening time and the desire to open more of the property exploration, the closure of this area of the park will be lifted. Off-trail use within the central ranch, except around Tom Davis Gulch is permitted for all hikers and equestrians but not for bike users.

2.9.2 FACILITIES:

There are three trailheads on Walker Ranch. The Meyer's Gulch Trailhead on Meyer's Gulch and the Walker Loop and Ethel Harrold trailheads on the Central Ranch property. No expansion is planned for these lots. However, both the Meyer's Gulch and Ethel Harrold lots may need re-grading and realignment to better serve the public through all seasons.

The Meyer's Gulch Trailhead is split into an upper and lower lot. In order to better serve the users in all seasons, both lots will be reconfigured to allow the lots to be plowed. This will allow winter access to the lower lot which has been unplowable up until now. This plan also proposes a nature-play area adjacent to the existing picnic shelter at Meyer's Gulch. A footprint for such an area can be found on Figure 11. This area is intended to provide a family-oriented play area using natural materials such as rocks and wood.

The Ethel Harrold lot and trailhead have been significantly improved in recent years. However, improvements should continue to create better drainage for the trailhead and to realign access from the trailhead into the park if trail realignments necessitate such realignment.

2.9.3 REGIONAL TRAILS

Connecting Walker Ranch with other open space and parks in the region was a goal of the original Walker Ranch Management Plan and the desire is reflected in the Boulder County Comprehensive Plan. Connections off of Walker Ranch generally fall outside the scope of this plan since much of the trail would occur off of Boulder County property. However, Boulder County is leading an effort to define and formulate a plan for connections in the mountains of Boulder County that should help to address the desire to connect the plains to the mountains using connections between public lands.

Eldorado Canyon State Park Connection

There is an existing pedestrian/equestrian link between Eldorado Canyon State Park and Walker Ranch (Figure 10: Existing Facilities). The trail is steep and was not designed as a multi-use trail. For many years, there has been a desire to create a multi-use link that could accommodate bicycles. Efforts were made to include that decision in this management plan. However, through discussions between the property owners involved, it is clear that more research is required. The three agencies have agreed to hire a consultant to explore different trail options and provide an analysis of the impacts of these various options. While such a connection to Walker Ranch is appropriate and is permitted through this

plan, the decision with respect to location and extent of the trail will occur outside of this plan and be approved by the County Commissioners.

Walker Ranch Links to the West

The Mountain Regional Trails Group is tasked with exploring trail connection opportunities in the mountains of Boulder County. The Boulder County Comprehensive Plan includes a proposed trail corridor connecting Eldorado Canyon State Park and the Town of Nederland. Corridors in the Comprehensive Plan are described as possible links and a corridor can be considered up to two miles wide. Therefore, while the connection was proposed, no further refinement of the route for that connection had been completed.

Though the mapped corridor is two miles wide, Walker Ranch provides an excellent link in the chain of trails and properties that will be required to make this connection. After examination of habitat areas within Walker Ranch, adjacent properties, and appropriate trail corridors to the west, BCPOS staff proposed and explored the impacts of two options: 1) Meyer’s Gulch and 2) Central Ranch (Figure 11: Proposed Facilities).

- 1) Meyer’s Gulch Connection – This connection would proceed north and west from the Meyer’s Homestead Trail. The regional trail would then cross both Forest Service and private property. The following chart was developed by staff to explore the pros and cons of the options:

PROs	CONs
Can expand/redesign parking	Previously considered as part of Comprehensive Plan, removed for resource damage concerns
Two regional connections (to Ned and Chapman)	Potential impact to family character
More public ownership	Neighbor impacts
More backcountry feel	Private ownership
Meets some existing user desires	Expanded parking
	Potential habitat fragmentation
	Greater impacts to high value habitat

- 2) The Central Ranch Connection would link the Walker Loop Trail west across Tom Davis Gulch and then stay north of Castle Rock before crossing on to Denver Water property for a short distance before it would link on to County Road 68J. The pros and cons of this option are listed below:

PROs	CONs
No crossing at Flagstaff	Some private ownership issues
Current use – thus easy access	Neighbor impacts
Preserves more habitat than MG option	Motorized uses exist on 68J
Public ownership to the west	Requires crossing Tom Davis Gulch
Existing public road (68J)	More Roads/less backcountry feel
Preserve high value habitat	Will require expanded parking

Preferred Option

After a review of the two options above the Central Ranch option will be the trail connection. While both options were explored as possible links, the impacts associated with the Meyer's Gulch option make it untenable. Therefore, Figure 11 reflects the Central Ranch Option as the only appropriate connection to future regional trails.

Parks and Open Space will work to implement a regional trail west from Walker Ranch using the Central Ranch connector. This trail connection on Walker Ranch will pass between the raptor closure area and Flagstaff Road."

2.9.4 TRAIL CHANGES AND "THE WALL"

The majority of trails on BCPOS property are designated as multi-use trails. Our mission is to provide recreational opportunities to the many different user groups and recreational activities that can be described as "passive recreation." Sometimes it is not possible to achieve this goal. Trail construction on BCPOS property is subject to the limitations of the landscape, engineering, and cost.

A section of the Walker Loop Trail south of South Boulder Creek on the east side of the Loop has come to be called "The Wall". This section of trail descends an extremely steep cliff face using a set of stairs. For this reason it is impassable to equestrians and requires most cyclists to dismount. As a result a number of users have requested a review of this trail segment.

In 2007, such a study was completed by a consultant for BCPOS. The consultant reviewed a series of viable trail options and concluded that there were two options that could be used to avoid "The Wall." The first required acquisition of property to the east of Walker Ranch. The second would involve significant costs and would result in damaging an important wildlife movement corridor to the west of the existing trail. Therefore, no reroute of this section is planned. If conditions change in the future, it may be appropriate to explore rerouting the Walker Loop to make it a multi-use loop.

Connecting Meyer's Gulch

To facilitate possible future connections and reduce on-road traffic, BCPOS staff will explore a potential trail connection along Flagstaff Road to Chapman Drive to the east. Staff will work with the Boulder County Transportation Department on this effort. The connection may involve easements with neighboring landowners whose permission would be needed for development of a trail.

2.9.5 ALTERNATIVE RECREATION

Many visitors use BCPOS properties for fishing, rock climbing, and nature study. Fishing is permitted in South Boulder Creek and off-trail access is permitted along the entire length of the creek. A trailhead located on Denver Water property west of Walker Ranch provides access to South Boulder Creek on Denver Water Property. A signed, but unmaintained trail connects Denver Water property with Walker Ranch on the north side of South Boulder Creek. Climbing access is now permitted within the formerly closed burn area and only limited on Castle Rock if a closure is instituted to protect nesting raptors. As

usual, pedestrians and equestrians are permitted to go off-trail outside of areas that are closed whether permanently or seasonally.

2.9.6 RECREATION AND FACILITIES MANAGEMENT SUMMARY

Much of the specific management proposed for Walker Ranch will impact Trails and Facilities. Again the overarching goal of the management plan is to maintain the current use patterns at the park but improve services.

Trails and Facilities also attracted the vast majority of comments and proposals from the public.

Management proposals included:

1. Adding a loop trail on Meyers Gulch
2. Adding inner loops or additional loops to the Walker Ranch Trail
3. Closing Meyers Gulch to off-trail access
4. Opening fire roads for bikes
5. Allowing off-leash dog access
6. Re-routing the section of the Walker Loop known as “The Wall” to eliminate steps and allow for easier access.
7. Allow access to BLM South
8. Develop parallel trails to reduce conflict
9. Create small sections of parallel trail to allow for more difficult trail experiences
10. Create a trail connection to the Boulder Water Pipeline access road
11. Create a trail connection between Walker Ranch and Chapman Drive

In response to proposals from the public and working internally to develop a long-term plan for Walker Ranch the following is a list of management tasks for Walker Ranch:

1. Realign portions of the Walker Ranch loop to improve sustainability and user experience
2. Explore opportunities for short sections of parallel trail to allow for ‘easy’ and ‘hard’ trail options. Trail design would be done in consultation with Resource Management and Cultural Resources staff.
3. Improve signage on trails to clearly mark appropriate trails.
4. Investigate and, if possible, create a trail connection between the Meyers Homestead picnic shelter and both parking lots at Meyers Homestead Trailhead.
5. Limit vehicular access for emergencies on the Central Ranch to the Ethel Harrold and Walker Loop Trailheads.
6. Improve Meyers Homestead grading and design to allow for better circulation and use of both lots during the winter months.
7. Add horse trailer parking at Meyers Homestead Trailhead.
8. Redevelop Ethel Harrold Trailhead to formalize parking and work with neighbors to address drainage from the parking area.
9. Make improvements to the Meyers Homestead Trail such that it can serve as a sustainable trail, access road, and emergency response route.
10. Identify and map fire roads.
11. Sign fire roads as, “NOT A TRAIL”.
12. Promote alternative recreation such as fishing and climbing in appropriate areas and at appropriate times of year.

13. Monitor the impacts of alternative recreation and develop guidelines to reduce unintended impacts if necessary.
14. Work with regional trails planning team to connect Walker Ranch to regional trails through the Central Ranch.
15. Conduct and evaluate comparison study of alternatives, and then plan and design for multi-purpose connection between Walker Ranch and Eldorado Canyon State Park along with the City of Boulder and Colorado Parks and Wildlife.
16. Plan, and if possible, design and construct a more sustainable access to the Walker Loop Trail from the Ethel Harrold Trailhead. This should be done in consultation with Resource Management and Cultural Resources staff members in order to minimize impacts.

2.10 EDUCATION AND OUTREACH MANAGEMENT

The Walker Ranch Homestead provides an excellent educational opportunity to study and understand the conditions of life in the mountains during the settlement of the Rocky Mountains by European settlers. Boulder County Parks and Open Space provides several opportunities for the public to see “living history”, to learn about ranch life during the late 1800s. Depending on the time of year and event theme, visitors can watch volunteers dressed in period clothing demonstrating various chores associated with rural living including blacksmithing, cooking on a wood-burning stove, and preserving food. Visitors are also invited to participate in activities such as churning butter, playing historical children’s games, making wooden shingles and wash laundry the old fashioned way. The department also hosts guided tours of the homestead and historical activities for groups of 12 or more, including local school children studying Colorado history.

Sporting a diverse array of ecosystems to explore, Walker Ranch provides great opportunities to educate visitors about the natural resources and open space management. Trained volunteer naturalists lead nature hikes tailored to a group’s desires, year-round and free of charge.. All school programs are developed to meet a number of state and district standards for science, history and geography. The most popular themes are: Natural Environment (geology, life-zones, and nature through the seasons), Plants (adaptations, wildflowers, weeds, trees and fire ecology), Wildlife (local wildlife, predator-prey relationships, wildlife adaptation, and wildlife homes and habitats), and Birds (migration, bird watching, and raptors).

2.10.1 EDUCATION AND OUTREACH MANAGEMENT DIRECTION

Interactions with the residents of Boulder County and visitors to our open space properties make a difference as we try to protect and conserve the open spaces that make Boulder County great. Our outreach program includes efforts to educate trail users, explore the history of our properties, and various programs on our open spaces both educational and recreational. Continuing these programs and reinvigorating them is the long term goal of education and outreach at Walker Ranch.

BCPOS is also committed to outreach in the broader sense. Walker Ranch is a large property with diverse neighbors including both institutional and private landowners. Maintaining and improving relations with our neighbors is a key part of this plan. The plan encourages working to ensure that

Walker Ranch can be a regional hub without negatively affecting the natural setting that makes this area so vital. While many specific actions are not listed this is an on-going and constantly evolving part of our management strategy.

1. Continue to hold educational and interpretive events at the Walker Ranch Homestead.
2. Monitor, replace, and improve signage within the park as needed.
3. As new resources are uncovered, develop interpretive plans for these resources.
4. Work closely with neighbors to explore and remediate any impacts of living adjacent to open space.
5. Address encroachment issues early before they become habituated.
6. Work closely with institutional landowners to develop long range plans for adjacent lands and to avoid use conflicts.

2.11 ADAPTIVE MANAGEMENT

Open space is dynamic. Changes on the land, to vegetation, wildlife movement, and alterations in surrounding land uses can significantly impact how Boulder County manages a particular property. Management Plans offer a snapshot of existing conditions and provide goals for management in a 15 to 20 year time period. However, management plans cannot predict all future changes or provide management strategies for every eventuality. Adaptive management strategies provide a way to manage through change.

Adaptive management relies on observation, regular consultation, and flexible decision-making. As conditions within Walker Ranch change, management strategies and practices should adapt. The vision and goals in this plan are broad, respect the past, and are open to future change. This was intentional. The purpose of these broad goals was to allow for significant change based on the observation of change.

Change does require regular observation. Boulder County Parks and Open Space relies on staff, volunteers, and visitors to stay abreast of changes on its properties. Without partners, BCPOS cannot respond to change

Walker Ranch Management Plan

Goals	Objectives	Management Strategies	Timing	Priority	Primary Responsibility
Land and Realty (LR)					
LR 1: Improve and ease Management Discussions					
	LR 1.1: Divide Property into Management Zones				
		LR 1.1.1: Create Meyer’s Gulch Management Zone	Short Term	Low	Resource Planning & Real Estate
		LR 1.1.2: Create Central Ranch Management Zone	Short Term	Low	Resource Planning & Real Estate
		LR 1.1.3: Create BLM South Management Zone	Short Term	Low	Resource Planning & Real Estate
Historic Preservation (HP)					
HP 1: Preserve historic buildings and structures					
	HP 1.1: Walker Ranch Homestead				
		HP 1.1.1: The site around the homestead should be closed to public access except during department-sponsored tours and events	Long Term	High	Resource Protection, Resource Planning, Education & Outreach, & Recreation and Facilities (Do we want to use Don’s new work group name “Buildings & Historic Preservation?”)
		HP 1.1.2: Maintain buildings and structures according to the Secretary of the Interior’s Standards for the Treatment of Historic Properties	Long Term	High	Resource Planning, Recreation and Facilities, and Education & Outreach
		HP 1.1.3: The surrounding landscape should be maintained to minimize the negative impacts of fire and promote historic context for which the property is significant	Long Term	High	Resource Planning & Recreation and Facilities, Forestry, and Ed & Outreach
	HP 1.2: Buildings and structures outside homestead complex				
		HP 1.2.1 Re-evaluate buildings and structures for treatment options	Long Term	High	Resource Planning & Recreation and Facilities
		HP 1.2.1: Assess interpretation value and develop a plan if interpretation is determined to be viable	Long Term	Low	Resource Planning, Education & Outreach
HP 2: Protect cultural resources					
		HP 2.1.1: Complete cultural resource surveys for previously un-surveyed properties and conduct a reevaluation of all previously surveyed cultural resources	Long Term	Medium	Resource Planning
		HP 2.1.2: Develop a strategy to protect and assess interpretation value	Long term	Low	Resource Planning & Recreation and Facilities and Education & Outreach
	HP 2.2: Manage interaction between cultural resources and visitor use				
		HP 2.2.1: Increase cultural resources staff participation with future property development	Long Term	High	Resource Planning, Resource Management, & Recreation and Facilities, and Education & Outreach
Ecosystems (E)					
E 1: Protect Vital Resources					
	E 1.1: Limit Access to fragile resources				

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E 1.1.1: Designate BLM South as a Conservation Area.	Long Term	High	Resource Protection
E 1.1.2: Designate Tom Davis Gulch as a Conservation Area	Long Term	High	Resource Protection
E 1.2: Use seasonal closures to protect resources			
E 1.2.1: Close Castle Rock seasonally to encourage raptor nesting. If nesting does not occur, closure can be lifted within parameters set by the Colorado Division of Parks and Wildlife	Long Term	High	Resource Management & Resource Protection
E 1.2.2: Closure should be matched to the guidelines set forth by Colorado Parks and Wildlife	Long Term	High	Resource Management & Resource Protection
E 2: Manage and Monitor Existing Resources			
E 2.1: Manage Forests			
E 2.1.1: Manage forested areas based on the Walker Ranch Management Plan	Long Term	High	Resource Management
E 2.1.2: Management strategy should change based on long term trends.	Long Term	Low	Resource Management
E 2.2: Manage and eliminate undesirable impacts			
E 2.2.1: Identify weed issues early	Long Term	High	Resource Management
E 2.2.2: In accordance with Weed Management Policy, eradicate weeds	Long Term	High	Resource Management
E 2.3 Develop Resource Management Program			
E 2.3.1: Monitor the former burn area for impacts due to opening	Long Term	Medium	Resource Management
E 2.3.2: Continue to broaden monitoring program where schedule and budget permit	Long Term	Medium	Resource Management
Trails & Facilities (TF)			
TF 1: Trails & Trailheads			
TF 1.1: Improve user experience on trails			
TF 1.1.1: Realign portions of the Walker Ranch Loop to improve sustainability and user experience	Short Term	High	Recreation and Facilities
TF 1.1.2: Clearly mark trails	Short Term	Medium	Recreation and Facilities & Resource Protection
TF 1.2: Address trailhead issues			
TF 1.2.1: Explore connection between Meyer's Gulch shelter and both parking lots, if possible, make the connection	Medium Term	Low	Recreation and Facilities
TF 1.2.2: Limit vehicular access to the Walker Ranch Loop to the access points at Ethel Harrold and the Walker Loop Trailhead	Long Term	High	Recreation and Facilities & Resource Protection
TF 1.2.3: Improve grade at Meyer's Gulch Trailhead between the upper and lower lot. This would involve moving current road location and make the lot plowable in winter	Short Term	High	Resource Protection & Recreation and Facilities
TF 1.2.4: Create horse-trailer parking at Meyer's Gulch	Medium Term	Medium	Recreation and Facilities

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TF 1.2.4: Improve Ethel Harrold Trailhead through redesign and work with neighbors to mitigate impacts of drainage issues	Short Term	High	Recreation and Facilities
TF 2: Road Management			
TF 2.1: Assess and Maintain Roads			
TF 2.1.1: The Meyer’s Homestead Trail serves as both an access road and trail. Improvements should be made to make this sustainable as an access road	Short Term	High	Recreation and Facilities & Resource Management
TF 2.1.2 Identify Fire Roads in Management Plan and note that they are not considered trails.	Short Term	High	Resource Planning
TF 2.2: Manage access to Fire Roads			
TF 2.2.1 Sign Fire Roads as “NOT A TRAIL”	Short Term	High	Resource Protection
TF 3: Access & Recreation			
TF 3.1 Promote alternative recreation			
TF 3.1.1: Design and implement a nature play area adjacent to the Meyer’s Gulch Trailhead	Medium Term	Medium	Recreation and Facilities
TF 3.1.2: Monitor and address impacts of climbing and fishing access to minimize impacts	Long Term	Medium	Recreation and Facilities, Resource Protection, & Resource Management
TF 3.2 Assess the feasibility of new trails			
TF 3.2.1: Work with the Regional Trails Team to assess the feasibility of access points into Walker Ranch from the western end of Boulder County	Long Term	Medium	Recreation and Facilities, Real Estate, Resource Management, & Resource Planning
TF 3.2.2: Finalize and create a multi-use connection between Walker Ranch and Eldorado Canyon State Park	Long Term	High	Recreation and Facilities, Real Estate, Resource Management, & Resource Planning
TF 3.2.3 Explore new trail access from Ethel Harrold Trailhead to Walker Ranch Loop	Short/Medium	High	Recreation and Facilities, Resource Management, and Resource Planning
Forestry (F)			
F 1: Manage forestry resources at Walker Ranch			
F 1.1: Manage forest resources in accordance with management plan.			
F 1.1.1: Manage forests in accordance with this management plan except when conditions warrant changes. Changes must be approved in accordance with the BCPOS Forest Policy	Long Term	Medium	Resource Management
F 1.2.2: Monitor forest health and work with neighbors to address forestry issues on a watershed scale	Long Term	Medium	Resource Management
Education & Outreach (EO)			
EO 1 Maintain Educational Opportunities			
EO 1.1: Provide educational opportunities within Walker Ranch			
EO 1.1.1: Continue to hold tours and special events at Walker	Long Term	Medium	Education and Outreach & Resource

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Ranch Homestead				Planning
EO 1.1.2: Develop, monitor, and replace interpretive signage along trails and trailhead kiosks	Long Term	Medium		Education and Outreach
EO 1.1.3: Develop interpretive plans for resources found within the park	Long Term	Medium		Education and Outreach

EO 2 Community Cooperation

EO 2.1: Maintain relationships with neighbors				
EO 2.1.1: Work with neighbors to address area issues and impacts to neighbors of being adjacent to Open Space	Long Term	High		Education and Outreach & Resource Protection
EO 2.1.2: Address encroachment issues when and where possible	Long Term	High		Education and Outreach & Resource Protection
EO 2.2 Develop and Maintain relationships with institutional landowners				
EO 2.2.1: Participate in long-range planning discussions with institutional landowners	Long Term	High		Resource Planning, Education and Outreach & Resource Protection
EO 2.2.2: Work closely on access and adjacency impacts	Long Term	High		Resource Planning, Education and Outreach & Resource Protection

3 APPENDICES

APPENDIX A. WORKS CITED

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APPENDIX B. EASEMENTS AND RIGHTS OF WAY RESERVED ON PROPERTIES WITHIN WALKER RANCH

This list represents a simplistic representation of the easements that exist on all properties included in the Walker Ranch Management Plan. For a more in-depth understanding of the impact of these easements on management, please consult the BCPOS Real Estate Division.

Walker Ranch

- Right-of-way granted to the City and County of Denver (recorded 10/28/1950)
- Right-of-way granted to the Public Service Corporation of Colorado (recorded 7/31/1951)
- Right-of-way granted to Eastern Colorado Power Company for the construction, operation, and maintenance of a ditch and pipeline for carrying water (recorded 4/1/1909)
- Right-of-way granted for County Road 77 over and across the property.
- Within the Moffat Tunnel, Coal Creek Canyon FPD, and Eldorado Springs-Marshall FPD Special Taxation Districts
- Right-of-way granted to City and County of Denver (recorded 2/10/1956)
- Right-of-way granted to Colorado Telephone and Telegraph Company for the Gregory Canyon Line (12/21/1906)
- Easement and right-of-way 25 feet wide for oil and gas pipeline to Western Slope Gas Company (3/25/1971)
- Right-of-way for unobstructed flow of South Boulder Creek
- Easement and right-of-way 25 feet wide for oil and gas pipeline to Western Slope Gas Company (9/16/1969)
- Easement and right-of-way 25 feet wide for oil and gas pipeline to Western Slope Gas Company (3/25/1971)
- Easement and right-of-way 10 feet wide for oil and gas pipeline to Western Slope Gas Company (9/18/1975)
- Right-of-way for communication and other facilities to Mountain State Telephone and Telegraph Company (8/1/1973)

BLM South

- Right-of-way for access to their property granted to various ROW Colorado 64692
- Easement for water cistern granted to Gold Hill Fire Protection District by CO ROW 60632
- Right-of-way for power transmission to Public Service Corporation of Colorado
- Right-of-way for highway purposes to CDOT (11/9/1921)
- Right-of-way for communication equipment purposes to Qwest Corporation (10/21/1976)

Westphal

- Easement for electrical transmission and or distribution lines to Union Rural Electric Association August 1970

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- Right-of-way whether fee or easement only for Denver and Rio Grande Railways insofar as the same may affect the access easements

Buffalo Park

- Easement for electrical transmission and or distribution lines to Union Rural Electric Association August 1970
- Right-of-way whether fee or easement only for Denver and Rio Grande Railways insofar as the same may affect the access easements
- Terms, conditions, agreements, and obligations contained in Private Way License Contract #28354 10/22/1980 and 10/4/1982

APPENDIX C. PUBLIC COMMENT

The public comments received during the public comment period and at the public hearing can be found at <http://www.bouldercounty.org/doc/parks/walkercomments.pdf>.

APPENDIX D. U.S. NATIONAL VEGETATION CLASSIFICATION SYSTEM

The U.S. National Vegetation Classification System (NVCS) is a standard vegetation classification and mapping system used by numerous federal, state, and local government agencies, as well as other non-governmental organizations (e.g. state Natural Heritage programs). Boulder County Parks & Open Space is utilizing this system to map, classify, and track long-term changes in vegetation across much of its non-agricultural open space properties.

The following shows the hierarchy and an example of the NVCS and provides definitions for terms used in the classification system. BCPOS classifies vegetation down to the level of

Alliance.

Hierarchy of U.S. National Vegetation Classification System

Class (vegetation structure, e.g. woodland)

Subclass (leaf phenology, e.g. evergreen woodland)

Group (leaf type, climate type, e.g. temperate or subpolar needle-leaved evergreen woodland)

Subgroup (degree of naturalness, e.g. natural/semi-natural temperate or subpolar needle-leaved evergreen woodland)

Formation (other physiognomic or environmental factors, e.g. rounded-crowned temperate or subpolar needle-leaved evergreen woodland)

Alliance (dominant species in uppermost stratum, e.g. Ponderosa pine woodland alliance)

Association (additional dominants from any stratum, e.g. Ponderosa pine/Ross's sedge /silver sage/hairy false golden aster/needle-and-thread)

Definition of Terms (from Maybury 1999, Appendix B, p. 26)

Forest: *Trees with their crowns overlapping (generally forming 60 percent to 100 percent cover).*

Woodland: *Open stands of trees with crowns not usually touching (generally forming 25 percent to 60 percent cover).*

Shrubland: *Shrubs generally greater than 0.5 meter tall with individuals or clumps overlapping to not touching (generally forming more than 25 percent cover, with trees generally forming less than 25 percent cover). Vegetation dominated by woody vines is generally treated in this class.*

Dwarf-Shrubland: *Low-growing shrubs usually under 0.5 meter tall with individuals or clumps overlapping to not touching (generally forming greater than 25 percent cover, with trees and tall shrubs generally forming less than 25 percent cover).*

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Herbaceous: *Herbaceous plants dominant (generally forming at least 25 percent cover; with trees, shrubs, and dwarf-shrubs generally forming less than 25 percent cover).*

Maybury, K.P., editor. 1999. Seeing the Forest and the Trees: Ecological Classification for Conservation. The Nature Conservancy, Arlington, VA. 23 pp. plus appendices.

APPENDIX E. WALKER RANCH PLANT SPECIES LIST

Genus Species	Common Name	Lifeform	State Weed List	Life History
<i>Trifolium hybridum</i>	Alsike clover	Forb		Introduced
<i>Alyssum parviflorum</i>	alyssum	Forb		Introduced
<i>Veronica americana</i>	American speedwell	Forb		Native
<i>Erigeron speciosus</i>	aspen fleabane	Forb		Native
<i>Geum sp.</i>	avens	Forb		
<i>Actaea rubra</i>	Baneberry, Red baneberry	Forb		Native
<i>Comandra umbellata</i>	Bastard-toadflax	Forb		Native
<i>Galium sp.</i>	bedstraw	Forb		
<i>Monarda fistulosa</i>	Bee-balm	Forb		Native
<i>Lappula redowskii</i>	Beggar's tick. Stickseed	Forb		Native
<i>Drymocallis fissa</i>	big flower cinquefoil	Forb		Native
<i>Machaeranthera bigelovii</i>	Bigelow's tansyaster	Forb		
<i>Convolvulus arvensis</i>	bindweed	Forb	C list	Introduced
<i>Cardamine cordifolia</i>	Bittercress	Forb		Native
<i>Fallopia convolvulus</i>	black bindweed	Forb		Introduced
<i>Medicago lupulina</i>	black medic	Forb		Introduced
<i>Rudbeckia hirta</i>	Black-eyed Susan	Forb		Native
<i>Lesquerella montana</i>	bladderpod	Forb		Native
<i>Gaillardia aristata</i>	blanketflower	Forb		Native
<i>Delphinium nuttallianum</i>	Blue larkspur	Forb		Native
<i>Lactuca tatarica</i>	blue lettuce	Forb		Native
<i>Mertensia ciliata</i>	Bluebells	Forb		Native
<i>Collinsia parviflora</i>	Blue-eyed Mary, Hunchback flower	Forb		Native
<i>Limnorchis dilatata</i>	Bog orchid	Forb		Native
<i>Limnorchis hyperborea</i>	Bog orchid	Forb		Native
<i>Pneumonanthe bigelovii</i>	bottle gentian	Forb		Native
<i>Pteridium aquilinum</i>	Bracken	Forb		Native
<i>Heuchera bracteata</i>	bracted alumroot	Forb		Native
<i>Brickellia grandiflora</i>	brickellbrush	Forb		Native
<i>Cystopteris fragilis</i>	Brittlefern	Forb		Native
<i>Scutellaria brittonii</i>	Britton's skullcap	Forb		Native
<i>Typha latifolia</i>	broad-leaved cattail	Forb		Native
<i>Aphyllon fasciculatum</i>	broomrape	Forb		Native
<i>Cirsium vulgare</i>	bull thistle	Forb	B list	Introduced
<i>Ranunculus uncinatus</i>	Buttercup	Forb		Native
<i>Senecio spartioides</i>	butterweed	Forb		Native
<i>Solidago canadensis</i>	Canada goldenrod	Forb		Native
<i>Breea arvensis</i>	Canada thistle	Forb	B list	Introduced
<i>Anemone cylindrica</i>	candle anemone	Forb		Native
<i>Nepeta cataria</i>	catnip	Forb		Introduced
<i>Cerastium strictum</i>	chickweed	Forb		Native
<i>Mertensia lanceolata</i>	chiming Bells	Forb		Native
<i>Potentilla sp.</i>	cinquefoil	Forb		
<i>Triodanis perfoliata</i>	clasping venus' looking-glass	Forb		Introduced
<i>Galium spurium</i>	Cleavers, Goosegrass	Forb		Introduced

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<i>Aquilegia coerulea</i>	Colorado columbine, Colorado blue columbine	Forb		Native
<i>Mirabilis multiflora</i>	Colorado four o'clock	Forb		
<i>Oxytropis lambertii</i>	Colorado loco	Forb		Native
<i>Heuchera parvifolia</i>	common alumroot	Forb		Native
<i>Campanula rotundifolia</i>	common harebell	Forb		Native
<i>Plantago major</i>	common plantain	Forb		Introduced
<i>Heracleum sphondylium</i>	Cow parsnip	Forb		Native
<i>Erigeron compositus</i>	Cutleaf fleabane	Forb		Native
<i>Linaria genistifolia</i>	dalmatian toadflax	Forb	B list	Introduced
<i>Taraxacum officinale</i>	dandelion	Forb		Introduced
<i>Toxicoscordion venenosum</i>	Death Camas	Forb		Perennial
<i>Rumex sp.</i>	dock	Forb		
<i>Polygonum douglasii</i>	Douglas' knotweed	Forb		Native
<i>Dracocephalum parviflorum</i>	Dragonhead	Forb		Native
<i>Gastrolychnis drummondii</i>	Drummond's campion	Forb		Native
<i>Townsendia grandiflora</i>	easter daisy	Forb		Native
<i>Townsendia hookeri</i>	Easter daisy, Hooker's easter daisy	Forb		Perennial
<i>Cirsium eatonii</i>	Eaton thistle	Forb		Native
<i>Frasera speciosa</i>	elkweed	Forb		Native
<i>Oenothera villosa</i>	evening primrose	Forb		Native
<i>Oenothera caespitosa</i>	Evening-primrose	Forb		Native
<i>Prosartes trachycarpa</i>	Fairybells	Forb		Native
<i>Boechera fendleri</i>	False Arabis	Forb		Native
<i>Brickellia rosmarinifolia</i>	False boneset	Forb		Native
<i>Camelina microcarpa</i>	false flax	Forb		Introduced
<i>Maianthemum amplexicaule</i>	false Solomon's seal	Forb		Native
<i>Thalictrum fendleri</i>	Fendler's meadow rue	Forb		Native
<i>Hydrophyllum fendleri</i>	Fendler's waterleaf	Forb		Native
<i>Fern sp.</i>	fern	Forb		
<i>Equisetum arvense</i>	field horsetail	Forb		Native
<i>Mentha arvensis</i>	field mint	Forb		Native
<i>Neolepia campestris</i>	fieldcress	Forb		Introduced
<i>Chamerion danielsii</i>	fireweed	Forb		Native
<i>Adenolinum lewisii</i>	flax	Forb		Native
<i>Erigeron sp.</i>	fleabane	Forb		
<i>Erigeron colo-mexicanus</i>	fleabane	Forb		Native
<i>Cirsium flodmanii</i>	Flodman's thistle	Forb		Native
<i>Galium triflorum</i>	Fragrant bedstraw	Forb		Native
<i>Penstemon virens</i>	Front Range beardtongue	Forb		Native
<i>Liatris punctata</i>	gayfeather	Forb		Native
<i>Geranium caespitosum</i>	geranium	Forb		Native
<i>Angelica ampla</i>	Giant angelica	Forb		Native
<i>Solidago gigantea</i>	giant goldenrod	Forb		Native
<i>Ipomopsis aggregata</i>	Gilia	Forb		Native
<i>Rudbeckia ampla</i>	golden glow	Forb		Native
<i>Thermopsis divaricarpa</i>	goldenbanner	Forb		Native
<i>Chenopodium atrovirens</i>	Goosefoot, Lamb' quarters	Forb		Annual
<i>Lupinus argenteus</i>	Great Basin lupine	Forb		Native
<i>Physalis virginiana</i>	groundcherry	Forb		Native
<i>Pacera dimorphophylla</i>	Groundsel	Forb		Native

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<i>Senecio integerrimus</i>	groundsel	Forb		Native
<i>Packera fendleri</i>	Groundsel; Fendler's ragwort	Forb		Native
<i>Grindelia squarrosa</i>	gumweed	Forb		Native
<i>Heterotheca foliosa</i>	hairy false golden aster	Forb		Native
<i>Oxybaphus hirsutus</i>	hairy four o'clock/umbrellawort	Forb		Native
<i>Epilobium ciliatum</i>	hairy willow-herb	Forb		Native
<i>Chlorocrepis fendleri</i>	Hawkweed; Yellow hawkweed	Forb		Native
<i>Arnica cordifolia</i>	Heartleaf arnica	Forb		Native
<i>Conyza canadensis</i>	horseweed	Forb		Introduced
<i>Cynoglossum officinale</i>	hound's tongue	Forb	B list	Introduced
<i>Iris missouriensis</i>	iris	Forb		Native
<i>Chenopodium simplex</i>	Lamb's quarters	Forb		Annual
<i>Scrophularia lanceolata</i>	lanceleaf figwort	Forb		Native
<i>Geum macrophyllum</i>	large-leaved avens	Forb		Native
<i>Delphinium sp.</i>	larkspur	Forb		
<i>Tithymalus uralensis</i>	Leafy spurge	Forb		Introduced
<i>Helianthus pumilus</i>	little sunflower	Forb		Native
<i>Astragalus tenellus</i>	Loose-flowered milk vetch	Forb		Native
<i>Lysimachia ciliata</i>	Loosestrife	Forb		Native
<i>Lupinus argenteus</i>	Lupine	Forb		Native
<i>Hackelia floribunda</i>	manyflower stickseed	Forb		Native
<i>Calochortus gunnisonii</i>	mariposa/sego Lily	Forb		Native
<i>Anemonidium canadense</i>	Meadow anemone, Canada anemone	Forb		Native
<i>Equisetum pratense</i>	meadow horsetail	Forb		
<i>Astragalus sp.</i>	milkvetch	Forb		Native
<i>Oreocarya virgata</i>	miners candle	Forb		Native
<i>Solidago missouriensis</i>	Missourit goldenrod	Forb		Native
<i>Aconitum columbianum</i>	Monkshood, Columbian monkshood	Forb		Native
<i>Moss sp.</i>	moss	Forb		
<i>Aletes acaulis</i>	Mountain Caraway, Stemless Indian parsley	Forb		Native
<i>Antennaria parvifolia</i>	Mountain pussytoes, Small-leaf pussytoes	Forb		Native
<i>Solidago simplex</i>	Mt. Albert goldenrod	Forb		Native
<i>Carduus nutans</i>	musk thistle	Forb	B list	Introduced
<i>Paronychia jamesii</i>	nailwort	Forb		Native
<i>Oxybaphus linearis</i>	narrow leaf 4 o'clock/umbrellawort	Forb		Native
<i>Chenopodium leptophyllum</i>	narrowleaf goosefoot	Forb		Native
<i>Collomia linearis</i>	Narrowleaf mountain trumpet	Forb		Native
<i>Plantago lanceolata</i>	narrowleaf plantain	Forb		Introduced
<i>Cirsium undulatum</i>	native thistle	Forb		Native
<i>Cerastium nutans</i>	Nodding mouse-ears	Forb		Annual
<i>Allium cernuum</i>	nodding onion	Forb		Native
<i>Galium septentrionale</i>	northern bedstraw	Forb		Native
<i>Antennaria howellii</i>	Northern pussytoes, Howell's pussytoes	Forb		Native
<i>Potentilla norvegica</i>	Norwegian cinquefoil	Forb		Introduced
<i>Viola nuttallii</i>	Nuttall's violet	Forb		Perennial
<i>Orthilia secunda</i>	One-sided wintergreen	Forb		Native
<i>Arnica fulgens</i>	Orange Arnica, Foothill arnica	Forb		Perennial
<i>Ligusticum porteri</i>	Osha	Forb		Native
<i>Orthocarpus luteus</i>	Owl-clover	Forb		Native
<i>Castilleja miniata</i>	Paintbrush	Forb		Native

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<i>Pulsatilla patens</i>	Pasque Flower	Forb	Native
<i>Pulsatilla ludoviciana</i>	Pasqueflower	Forb	Native
<i>Anaphalis margaritacea</i>	pearly everlasting	Forb	Native
<i>Antennaria pulcherrima</i>	Pearly pussytoes	Forb	Native
<i>Parietaria pennsylvanica</i>	Pellitory	Forb	Native
<i>Thlaspi arvense</i>	pennycress	Forb	Introduced
<i>Penstemon sp.</i>	penstemon	Forb	
<i>Lepidium densiflorum</i>	peppergrass	Forb	Introduced
<i>Antennaria rosea</i>	Pink pussytoes, Showy pussytoes	Forb	Native
<i>Aster porteri</i>	porter aster	Forb	Native
<i>Potentilla gracilis</i>	potentilla	Forb	Native
<i>Astragalus laxmannii</i>	Prairie milk vetch	Forb	Native
<i>Lactuca serriola</i>	prickly lettuce	Forb	Introduced
<i>Lithospermum multiflorum</i>	Puccoon	Forb	Native
<i>Bahia dissecta</i>	ragleaf bahia	Forb	Native
<i>Ambrosia psilostachya</i>	ragweed	Forb	Native
<i>Trifolium pratense</i>	red clover	Forb	Introduced
<i>Androsace septentrionalis</i>	Rock primrose, Pygmy-flower rock jasmine	Forb	Native
<i>Arabis hirsuta</i>	Rockcress	Forb	Introduced
<i>Boechera drummondii</i>	Rockcress	Forb	Biennial/Perennial
<i>Tragopogon dubius</i>	salsify	Forb	Introduced
<i>Micranthes rhomboidea</i>	Saxifrage	Forb	Native
<i>Phacelia heterophylla</i>	scorpionweed	Forb	Native
<i>Hippochaete laevigata</i>	scouring rush	Forb	Native
<i>Hippochaete hyemalis</i>	Scouring-rush	Forb	Native
<i>Hippochaete variegata</i>	Scouring-rush	Forb	Perennial
<i>Prunella vulgaris</i>	self-heal	Forb	Native
<i>Acetosella vulgaris</i>	Sheep Sorrel	Forb	Introduced
<i>Capsella bursa-pastoris</i>	Shepherd's purse	Forb	Annual
<i>Dodecatheon pulchellum</i>	Shootingstar	Forb	Native
<i>Astragalus shortianus</i>	Short's milk vetch	Forb	Native
<i>Heliomeris multiflora</i>	Showy Goldeneye	Forb	Native
<i>Asclepias speciosa</i>	showy milkweed	Forb	Native
<i>Aliciella pinnatifida</i>	Showy vervain	Forb	Native
<i>Silene antirrhina</i>	sleepy catchfly	Forb	Introduced
<i>Aster laevis</i>	smooth aster	Forb	Native
<i>Tradescantia occidentalis</i>	spiderwort	Forb	Native
<i>Ipomopsis spicata</i>	Spike gilia	Forb	Biennial/Perennial
<i>Corallorhiza maculata</i>	Spotted Coralroot	Forb	Native
<i>Apocynum androsaemifolium</i>	Spreading dogbane	Forb	Native
<i>Erigeron divergens</i>	Spreading Fleabane	Forb	Native
<i>Tithymalus brachyceras</i>	spurge	Forb	Native
<i>Hypericum perforatum</i>	St. Johnswort	Forb	C list Introduced
<i>Maianthemum stellatum</i>	star false Solomon's seal	Forb	Native
<i>Urtica gracilis</i>	stinging nettle	Forb	Native
<i>Chenopodium fremontii</i>	Strawberry blite	Forb	Native
<i>Corallorhiza striata</i>	Striped corlaroot	Forb	Perennial
<i>Eriogonum umbellatum</i>	sulphur flower	Forb	Native
<i>Osmorhiza chilensis</i>	Sweet cicely	Forb	Native

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<i>Osmorhiza depauperata</i>	Sweet cicely; Bluntseed sweetroot	Forb	Native
<i>Melilotus officinale</i>	sweet Pea	Forb	Introduced
<i>Tanacetum vulgare</i>	Tansy	Forb	Introduced
<i>Descurainia sophia</i>	tansy mustard	Forb	Introduced
<i>Oligosporus pacificus</i>	tarragon	Forb	Native
<i>Astragalus miser</i>	Timber milk vetch	Forb	Native
<i>Erigeron flagellaris</i>	trailing fleabane	Forb	Native
<i>Acosta diffusa</i>	tumble knapweed	Forb	B list Introduced
<i>Sisymbrium altissimum</i>	tumble mustard	Forb	Introduced
<i>Senecio rapifolius</i>	Turnip-leaved senecio	Forb	Perennial
<i>Solidago mollis</i>	velvety goldenrod	Forb	Native
<i>Viola sp.</i>	violet	Forb	
<i>Viola rydbergii</i>	Violet	Forb	Native
<i>Viola scopulorum</i>	Violet	Forb	Native
<i>Erysimum asperum</i>	wallflower	Forb	Native
<i>Erysimum capitatum</i>	wallflower	Forb	Native
<i>Veronica catenata</i>	water speedwell	Forb	Native
<i>Nasturtium officinale</i>	watercress	Forb	Native
<i>Claytonia rosea</i>	Western spring beauty	Forb	Native
<i>Lithospermum ruderales</i>	western stoneseed	Forb	
<i>Harbouria trachypleura</i>	whiskbroom parsley	Forb	Native
<i>Trifolium repens</i>	white Dutch clover	Forb	Introduced
<i>Geranium richardsonii</i>	White geranium	Forb	Native
<i>Chlorocrepis albiflora</i>	White hawkweed	Forb	Native
<i>Virgulus falcatus</i>	white prairie aster	Forb	Native
<i>Artemisia ludoviciana</i>	white sage	Forb	Native
<i>Eriogonum flavum</i>	Wild buckwheat	Forb	Native
<i>Noccaea montana</i>	Wild candytuft	Forb	Native
<i>Cichorium intybus</i>	wild chicory	Forb	C list Introduced
<i>Geranium caespitosum</i>	Wild geranium	Forb	Native
<i>Glycyrrhiza lepidota</i>	wild licorice	Forb	Native
<i>Aralia nudicaulis</i>	Wild sarsaparilla	Forb	Native
<i>Fragaria vesca</i>	wild strawberry	Forb	Native
<i>Oligosporus dracunculoides</i>	wild tarragon	Forb	Native
<i>Epilobium brachycarpum</i>	willow herb	Forb	Native
<i>Pterogonum alatum</i>	winged buckwheat	Forb	Native
<i>Astragalus flexuosus</i>	Wiry milk vetch, Flexile milk vetch	Forb	Native
<i>Oxalis dillenii</i>	wood sorrel	Forb	Native
<i>Pterospora andromedea</i>	woodland pinedrops	Forb	Native
<i>Potentilla hippiana</i>	Woolly cinquefoil	Forb	Native
<i>Verbascum thapsus</i>	woolly mullein	Forb	Introduced
<i>Achillea lanulosa</i>	yarrow	Forb	Native
<i>Geum aleppicum</i>	Yellow avens	Forb	Native
<i>Agoseris glauca</i>	Yellow false dandelion; pale false dandelion	Forb	Native
<i>Pseudocymopterus montanus</i>	Yellow Mountain Parsley	Forb	Native
<i>Amerosedum lanceolatum</i>	yellow stonecrop	Forb	Native
<i>Acrolasia albicaulis</i>		Forb	Native
<i>Acrolasia dispersa</i>		Forb	Native
<i>Castilleja linariifolia</i>		Forb	Native

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<i>Draba aurea</i>		Forb	Native
<i>Gayophytum diffusum</i>		Forb	Native
<i>Micranthes odontoloma</i>		Forb	Native
<i>Mimulus floribundus</i>		Forb	Native
<i>Penstemon glaber</i>		Forb	Perennial
<i>Penstemon virgatus</i>		Forb	Native
<i>Physaria vitulifera</i>		Forb	Perennial
<i>Pocilla biloba</i>		Forb	NA
<i>Potentilla effusa</i>		Forb	Native
<i>Potentilla pensylvanica</i>		Forb	Native
<i>Potentilla pulcherrima</i>		Forb	Native
<i>Ranunculus glaberrimus</i>		Forb	Perennial
<i>Rumex triangulivalvis</i>		Forb	Native
<i>Thermopsis rhombifolia</i>		Forb	Native
<i>Festuca arundinacea</i>	Alta fescue, Tall fescue	Graminoid	Native
<i>Glyceria grandis</i>	American mannagrass	Graminoid	Native
<i>Juncus arcticus</i>	baltic rush	Graminoid	Native
<i>Andropogon gerardii</i>	big bluestem	Graminoid	Native
<i>Chondrosium gracile</i>	blue grama	Graminoid	Native
<i>Elymus glaucus</i>	Blue wild rye	Graminoid	Native
<i>Carex scoparia</i>	broom sedge	Graminoid	Native
<i>Scirpus pallidus</i>	bulrush	Graminoid	Native
<i>Poa compressa</i>	Canada bluegrass - alien	Graminoid	Introduced
<i>Elymus canadensis</i>	Canada wildrye	Graminoid	Native
<i>Bromopsis canadensis</i>	Canadian brome	Graminoid	Native
<i>Anisantha tectorum</i>	cheat grass	Graminoid	C list Introduced
<i>Leymus ambiguus</i>	Colorado wild rye	Graminoid	Native
<i>Agrostis stolonifera</i>	creeping bentgrass	Graminoid	Introduced
<i>Agropyron desertorum</i>	crested wheatgrass	Graminoid	Introduced
<i>Juncus dudleyi</i>	Dudley's rush	Graminoid	Native
<i>Carex emoryi</i>	Emory's sedge	Graminoid	Native
<i>Festuca sp.</i>	fescue	Graminoid	
<i>Festuca rubra</i>	Fescue	Graminoid	Perennial
<i>Festuca saximontana</i>	Fescue	Graminoid	Native
<i>Glyceria striata</i>	Fowl mannagrass	Graminoid	Native
<i>Carex geyeri</i>	Geyer's sedge	Graminoid	Native
<i>Nassella viridula</i>	green Needle Grass	Graminoid	Native
<i>Thinopyrum intermedium</i>	intermediate wheatgrass	Graminoid	Introduced
<i>Bromus japonicus</i>	Japanese brome	Graminoid	Introduced
<i>Koeleria macrantha</i>	June grass	Graminoid	Native
<i>Poa pratensis</i>	Kentucky bluegrass - alien	Graminoid	Introduced
<i>Poa agassizensis</i>	Kentucky bluegrass - native	Graminoid	Native
<i>Schizachyrium scoparium</i>	little bluegrass	Graminoid	Native
<i>Piptatherum micranthum</i>	littleseed ricegrass	Graminoid	Native
<i>Festuca pratensis</i>	meadow fescue	Graminoid	Introduced
<i>Alopecurus pratensis</i>	Meadow foxtail	Graminoid	Perennial
<i>Muhlenbergia montana</i>	mountain muhly	Graminoid	Native
<i>Poa fendleriana</i>	Muttongrass	Graminoid	Native
<i>Carex nebrascensis</i>	Nebraska sedge	Graminoid	Native
<i>Hesperostipa comata</i>	needle and thread	Graminoid	Native

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<i>Achnatherum lettermannii</i>	Needlegrass	Graminoid	Native
<i>Achnatherum nelsonii</i>	nelson needlegrass	Graminoid	Native
<i>Bromopsis porteri</i>	Nodding brome	Graminoid	Perennial
<i>Dactylis glomerata</i>	orchardgrass	Graminoid	Introduced
<i>Danthonia parryi</i>	parry's oatgrass	Graminoid	Native
<i>Danthonia spicata</i>	poverty oatgrass	Graminoid	Native
<i>Elytrigia repens</i>	Quackgrass	Graminoid	B list Native
<i>Polypogon interruptus</i>	Rabbitfootgrass	Graminoid	Perennial
<i>Agrostis gigantea</i>	redtop	Graminoid	Introduced
<i>Calamagrostis canadensis</i>	Reedgrass	Graminoid	Native
<i>Ceratochloa carinata</i>	Rescue grass	Graminoid	Perennial
<i>Carex rossii</i>	Ross' sedge	Graminoid	Native
<i>Agrostis scabra</i>	rough bentgrass	Graminoid	Native
<i>Juncus sp.</i>	rush	Graminoid	
<i>Sporobolus cryptandrus</i>	sand dropseed	Graminoid	Native
<i>Achnatherum scribneri</i>	Scribner needlegrass	Graminoid	Native
<i>Carex sp.</i>	sedge	Graminoid	
<i>Carex brevior</i>	shortbeak sedge	Graminoid	Native
<i>Bouteloua curtipendula</i>	sideoats grama	Graminoid	Native
<i>Elymus trachycaulus</i>	slender wheatgrass	Graminoid	Native
<i>Bromopsis inermis</i>	smooth brome	Graminoid	Introduced
<i>Leucopoa kingii</i>	spike fescue	Graminoid	Native
<i>Muhlenbergia wrightii</i>	spike muhly	Graminoid	Native
<i>Eleocharis macrostachya</i>	spikerush	Graminoid	Native
<i>Elymus elymoides</i>	squirreltail	Graminoid	Native
<i>Poa palustris</i>	Swamp bluegrass	Graminoid	Native
<i>Glyceria elata</i>	Tall mannagrass	Graminoid	Native
<i>Elymus lanceolatus</i>	thickspike wheatgrass	Graminoid	Native
<i>Elymus lanceolatus</i>	Thickspike wheatgrass reclamation	Graminoid	Native
<i>Phleum pratense</i>	timothy	Graminoid	Introduced
<i>Elymus virginicus</i>	Virginia wildrye	Graminoid	Native
<i>Pascopyrum smithii</i>	western wheatgrass	Graminoid	Native
<i>Pascopyrum smithii</i>	Western wheatgrass	Graminoid	Perennial
<i>Poa nervosa</i>	Wheeler bluegrass	Graminoid	Native
<i>Bromopsis lanatipes</i>	Woolly Brome	Graminoid	Native
<i>Carex aurea</i>		Graminoid	Native
<i>Carex foenea</i>		Graminoid	Perennial
<i>Carex hystericina</i>		Graminoid	Native
<i>Carex microptera</i>		Graminoid	Native
<i>Carex pensylvanica</i>		Graminoid	Native
<i>Carex petasata</i>		Graminoid	Perennial
<i>Carex stipata</i>		Graminoid	Perennial
<i>Carex xerantica</i>		Graminoid	Native
<i>Juncus alpino-articulatus</i>		Graminoid	Perennial
<i>Poa sp.</i>		Graminoid	
<i>Pediocactus simpsonii</i>	ball cactus/hedghog	Shrub	Native
<i>Salix bebbiana</i>	Beaked willow	Shrub	Native
<i>Salix irrorata</i>	bluestem willow	Shrub	Native
<i>Oreobatus deliciosus</i>	Boulder raspberry	Shrub	Native
<i>Ceanothus fendleri</i>	buckbrush	Shrub	Native

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<i>Ceanothus velutinus</i>	Buckbrush, Sticky-laurel	Shrub	Native
<i>Shepherdia canadensis</i>	Buffaloberry	Shrub	Native
<i>Distegia involucrata</i>	Bush honeysuckle	Shrub	Native
<i>Padus virginiana</i>	chokecherry	Shrub	Native
<i>Juniperus communis</i>	common juniper	Shrub	Introduced
<i>Ribes cereum</i>	currant	Shrub	Native
<i>Ribes inerme</i>	currant	Shrub	Native
<i>Corylus cornuta</i>	Hazelnut	Shrub	Native
<i>Lonicera morrowii</i>	Honeysuckle	Shrub	Perennial
<i>Arctostaphylos uva-ursi</i>	Kinnikinnik, Bearberry	Shrub	Native
<i>Cercocarpus montanus</i>	mountain mahogany	Shrub	Native
<i>Acer glabrum</i>	mountain maple	Shrub	Native
<i>Salix monticola</i>	Mountain willow	Shrub	Native
<i>Physocarpus monogynus</i>	ninebark	Shrub	Native
<i>Cerasus pensylvanica</i>	pin cherry	Shrub	Native
<i>Chimaphila umbellata</i>	Pipsissewa, Prince's pine	Shrub	Native
<i>Swida sericea</i>	red osier dogwood	Shrub	Native
<i>Rubus idaeus</i>	Red raspberry	Shrub	Perennial
<i>Betula fontinalis</i>	river birch	Shrub	Native
<i>Rosa woodsii</i>	rose	Shrub	Native
<i>Salix exigua</i>	sandbar willow	Shrub	Native
<i>Salix scouleriana</i>	Scouler's willow	Shrub	Native
<i>Salix lucida</i>	Shiny willow	Shrub	Native
<i>Rhus trilobata</i>	skunkbush	Shrub	Native
<i>Rhus glabra</i>	smooth sumac	Shrub	Native
<i>Symphoricarpos albus</i>	snowberry	Shrub	Native
<i>Symphoricarpos occidentalis</i>	snowberry	Shrub	Native
<i>Symphoricarpos rotundifolia</i>	snowberry	Shrub	
<i>Rubacer parviflorum</i>	thimbleberry	Shrub	Native
<i>Jamesia americana</i>	waxflower	Shrub	Native
<i>Amelanchier alnifolia</i>	western serviceberry	Shrub	Native
<i>Salix sp.</i>	willow	Shrub	
<i>Heterotheca villosa</i>	hairy false golden aster	Subshrub	Native
<i>Arctostaphylos uva-ursi</i>	kinnikinnick	Subshrub	Native
<i>Opuntia phaeacantha</i>	New Mexico P-P Cactus	Subshrub	Perennial
<i>Mahonia repens</i>	oregon grape	Subshrub	Native
<i>Toxicodendron rydbergii</i>	poison Ivy	Subshrub	Native
<i>Rosa arkansana</i>	prairie rose	Subshrub	Native
<i>Opuntia polyacantha</i>	prickly pear	Subshrub	Native
<i>Artemisia frigida</i>	silver sage	Subshrub	Native
<i>Yucca glauca</i>	yucca	Subshrub	Native
<i>Alnus incana</i>	alder	Tree	Native
<i>Populus tremuloides</i>	aspen	Tree	Native
<i>Picea pungens</i>	blue spruce	Tree	Native
<i>Ulmus pumila</i>	Chinese elm	Tree	Introduced
<i>Salix fragilis</i>	crackwillow	Tree	Introduced
<i>Pseudotsuga menziesii</i>	Douglas fir	Tree	Native
<i>Populus acuminata</i>	Lanceleaf cottonwood	Tree	Native
<i>Pinus flexilis</i>	Limber pine	Tree	Native
<i>Populus angustifolia</i>	narrowleaf cottonwood	Tree	Native

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<i>Populus deltoides</i>	plains cottonwood	Tree	Native
<i>Pinus ponderosa</i>	ponderosa pine	Tree	Native
<i>Sabina scopulorum</i>	Rocky Mtn. juniper	Tree	Native
<i>Sabina osteosperma</i>	Utah juniper	Tree	
<i>Pinus contorta</i>		Tree	Native

APPENDIX F. WALKER RANCH WILDLIFE SPECIES LIST

Walker Ranch-Documented Avian Species (compiled from original Walker Ranch Plan, and subsequent surveys through 2012)

Species Detected (common name)	Scientific name
American Crow	<i>Corvus brachyrhynchos</i>
American Goldfinch	<i>Carduelis tristis</i>
American Kestrel	<i>Falco sparverius</i>
American Robin	<i>Turdus migratorius</i>
Black-billed Magpie	<i>Pica hudsonia</i>
Black-capped Chickadee	<i>Poecile atricapillus</i>
Blue-grey Gnatcatcher	<i>Polioptila caerulea</i>
Brown-headed Cowbird	<i>Molothrus ater</i>
Black-headed Grosbeak	<i>Pheucticus melanocephalus</i>
Brown Creeper	<i>Certhia Americana</i>
Broad-tailed Hummingbird	<i>Selasphorus platycercus</i>
Chipping Sparrow	<i>Spizella passerine</i>
Clark's Nutcracker	<i>Nucifraga Columbiana</i>
Cordilleran Flycatcher	<i>Empidonax occidentalis</i>
Cooper's Hawk	<i>Accipiter cooperii</i>
Common Nighthawk	<i>Chordeiles minor</i>
Common Raven	<i>Corvus corax</i>
Common Snipe	<i>Gallinago gallinago</i>
Dark-eyed Junco	<i>Junco hyemalis</i>
Dusky Flycatcher	<i>Empidonax oberholseri</i>
Dusky Grouse	<i>Dendragapus obscurus</i>
Green-tailed Towhee	<i>Pipilo chlorurus</i>
Green-winged Teal	<i>Anas crecca</i>
Hammond's Flycatcher	<i>Empidonax hammondii</i>
Hairy Woodpecker	<i>Picoides villosus</i>
Hermit Thrush	<i>Catharus guttatus</i>
House Wren	<i>Troglodytes aedon</i>
Lazuli Bunting	<i>Passerina amoena</i>
Lesser Goldfinch	<i>Carduelis psaltria</i>
Lincoln's Sparrow	<i>Melospiza lincolnii</i>
Mallard	<i>Anas platyrhynchos</i>
MacGillivray's Warbler*	<i>Oporornis tolmiei</i>
Mountain Bluebird	<i>Sialia currucoides</i>
Mountain Chickadee	<i>Poecile gambeli</i>
Mourning Dove	<i>Zenaida macroura</i>
Northern Flicker	<i>Colaptes auratus</i>
Northern Goshawk	<i>Accipiter gentilis</i>
Olive-sided Flycatcher	<i>Contopus cooperi</i>
Pine Siskin	<i>Carduelis pinus</i>
Plumbeous Vireo	<i>Vireo plumbeus</i>

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Pygmy Nuthatch	<i>Sitta pygmaea</i>
Red-breasted Nuthatch	<i>Sitta Canadensis</i>
Ruby-crowned Kinglet	<i>Regulus calendula</i>
Red Crossbill	<i>Loxia curvirostra</i>
Red-naped Sapsucker	<i>Sphyrapicus nuchalis</i>
Rock Wren	<i>Salpinctes obsoletus</i>
Red-tailed Hawk	<i>Buteo jamaicensis</i>
Song Sparrow	<i>Melospiza melodia</i>
Spotted Towhee	<i>Pipilo maculatus</i>
Sharp-shinned Hawk	<i>Accipiter striatus</i>
Steller's Jay	<i>Cyanocitta stelleri</i>
Townsend's Solitaire	<i>Myadestes townsendi</i>
American Three-toed Woodpecker	<i>Picoides dorsalis</i>
Turkey Vulture	<i>Cathartes aura</i>
Vesper Sparrow	<i>Poocetes gramineus</i>
Violet-green Swallow	<i>Tachycineta thalassina</i>
Virginia's Warbler	<i>Vermivora virginiae</i>
Warbling Vireo	<i>Vireo gilvus</i>
White-breasted Nuthatch	<i>Sitta carolinensis</i>
Western Bluebird	<i>Sialia mexicana</i>
Western Meadowlark	<i>Sturnella neglecta</i>
Western Tanager	<i>Piranga ludoviciana</i>
Western Wood-Pewee	<i>Contopus sordidulus</i>
Williamson's Sapsucker	<i>Sphyrapicus thyroideus</i>
Wild Turkey	<i>Meleagris gallopavo</i>
Yellow Warbler	<i>Dendroica petechia</i>
Yellow-rumped Warbler	<i>Dendroica coronata</i>
Bald Eagle	<i>Pandion haliaetus</i>
Northern Harrier	<i>Circus cyaneus</i>
Golden Eagle	<i>Aquila chrysaetos</i>
Prairie Falcon	<i>Falco mexicanus</i>
Great Horned Owl	<i>Bubo virginianus</i>
Long-eared Owl	<i>Asio otus</i>
Saw-whet Owl	<i>Aegolius acadicus</i>
Common Poorwill	<i>Phalaenoptilus nuttallii</i>
Rufous Hummingbird	<i>Selasphorus rufus</i>
Spotted Sandpiper	<i>Actitis macularia</i>
Belted Kingfisher	<i>Megacerle alcyon</i>
Lewis's Woodpecker	<i>Asyndesmus lewis</i>
Downy Woodpecker	<i>Picoides pubescens</i>
Say's Phoebe	<i>Sayornis saya</i>
Western Kingbird	<i>Tyrannus verticalis</i>
Tree Swallow	<i>Tachycineta bicolor</i>
Barn Swallow	<i>Hirundo rustica</i>
Western Scrub jay	<i>Aphelocoma coerulescens</i>
American Dipper	<i>Cinclus mexicanus</i>

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Canyon Wren	<i>Catherpes mexicanus</i>
Golden-crowned Kinglet	<i>Regulus satrapa</i>
Gray Catbird	<i>Dumetella carolinensis</i>
Cedar Waxwing	<i>Bombycilla cedrorum</i>
Northern Shrike	<i>Lanius excubitor</i>
Loggerhead Shrike	<i>Lanius ludovicianus</i>
Wilson's Warbler	<i>Wilsonia pusilla</i>
Townsend's Warbler	<i>Dendroica townsendi</i>
Brewers Blackbird	<i>Euphagus cyanocephalus</i>
Chipping Sparrow	<i>Spizella pallida</i>
Lark Sparrow	<i>Chondestes grammacus</i>
Fox Sparrow	<i>Passerella iliaca</i>
Pine Grosbeak	<i>Pinicola enucleator</i>
House Finch	<i>Carpodacus mexicanus</i>
Cassin's Finch	<i>Carpodacus cassinii</i>
Evening Grosbeak	<i>Hesperiphona vespertina</i>
Flammulated Owl	<i>Otus flammeolus</i>
Osprey	<i>Pandion haliaetus</i>
Common Merganser	<i>Mergus merganser</i>
Great blue Heron	<i>Ardea Herodias</i>
Swainson's Hawk	<i>Buteo swainsoni</i>
Northern pygmy Owl	<i>Glaucidium gnoma</i>
Horned Lark	<i>Eremophila alpestris</i>
Blue Jay	<i>Cyanocitta cristata</i>
American Pipit	<i>Anthus rubescens</i>
Bohemian Waxwing	<i>Bombycilla cedrorum</i>
Lark Bunting	<i>Calmospiza melanocorys</i>
Common Grackle	<i>Quiscalus quiscula</i>
Merlin	<i>Falco columarius</i>
Eastern Kingbird	<i>Tyrannus tyrannus</i>
Sandhill Crane	<i>Grus canadensis</i>
Sage Thrasher	<i>Oreoscoptes montanus</i>

- Bolded entries are species on the Boulder County Species of Concern List (BCNA, 2010)

Mammal Species Documented by Staff, Volunteers and Researchers (compiled from original Walker Ranch Plan, and subsequent surveys through 2012)

Mammals (common name)	Scientific name
Abert's Squirrel	<i>Sciurus abertii</i>
American Elk	<i>Cervus elaphus</i>
Black Bear	<i>Ursus americanus</i>
Bobcat	<i>Felis rufus</i>
Coyote	<i>Canis latrans</i>
Golden-mantled ground squirrel	<i>Spermophilus lateralis</i>
Gray Fox	<i>Urocyon cinereoargenteus</i>
Long-tailed weasel	<i>Mustela frenata</i>

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Mountain Lion	<i>Felis concolor</i>
Mule Deer	<i>Odocoileus hemionus</i>
Northern Pocket Gopher	<i>Thomomys talpoides</i>
Nuttall's Cottontail	<i>Sylvilagus nuttallii</i>
Red Fox	<i>Vulpes vulpes</i>
Snowshoe Hare	<i>Lepus americanus</i>
Striped Skunk	<i>Mephitis mephitis</i>
Western Spotted Skunk	<i>Spilogale gracilis</i>
Yellow-bellied Marmot	<i>Marmota flaviventris</i>
Montane Shrew	<i>Sorex monticolus</i>
Water Shrew	<i>Sorex palustris</i>
Townsend's Big-eared Bat	<i>Corynorhinus townsendii</i>
White-tailed Jackrabbit	<i>Lepus townsendii</i>
Least Chipmunk	<i>Tamias minimus</i>
Wyoming Ground Squirrel	<i>Spermophilus elegans</i>
Rock Squirrel	<i>Spermophilus variegatus</i>
Pine Squirrel	<i>Tamiasciurus hudsonicus</i>
American Beaver	<i>Castor Canadensis</i>
Deer Mouse	<i>Peromyscus maniculatus</i>
Western Harvest Mouse	<i>Reithrodontomys megalotis</i>
Bushy-tailed Woodrat	<i>Neotoma cinerea</i>
Long-tailed Vole	<i>Microtus longicaudus</i>
Montane Vole	<i>Microtus montanus</i>
Preble's Meadow Jumping Mouse	<i>Zapus hudsonius preblei</i>
Common Porcupine	<i>Erethizon dorsatum</i>
Raccoon	<i>Procyon lotor</i>
Short-tailed weasel	<i>Mustela erminea</i>
American Badger	<i>Taxidea taxus</i>

Reptile Species Documented by Staff, Volunteers and Researchers (compiled from original Walker Ranch Plan, and subsequent surveys through 2012)

Reptiles: Common Name	<i>Scientific Name</i>
Prairie (Plateau or Fence) Lizard	<i>Sceloporus consobrinus</i>
Smooth Green Snake	<i>Liochlorophis vernalis</i>
Gopher Snake	<i>Pituophis catenifer</i>
Western Terrestrial Garter Snake	<i>Thamnophis elegans</i>
Plains Garter Snake	<i>Thamnophis radix</i>
Western Rattlesnake	<i>Crotalus viridis</i>

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Mammal Species of Special Concern, Federal State and CNHP-Documented at Walker Ranch

Common Name	Federal Status¹	State Status²	Colorado Natural Heritage Program³
Townsend's Big-eared Bat subspecies		SC	S2
Preble's Meadow Jumping Mouse	FT	ST	S1
1. Federal Status Codes: FE = Federally Endangered; FT = Federally Threatened			
2. State Status Codes: SE = State Endangered; ST = State Threatened; SC = State Species of Concern (not a statutory category)			
3. Colorado Natural Heritage Program (CNHP) Status Codes: S1 = Critically imperiled in state; S2 = Imperiled in state; B = Breeding			

Avian Species of Special Concern, Federal, State, CNHP and BCNA-Documented at Walker Ranch

Common Name	Federal Status (1)	State Status (2)	Colorado Natural Heritage Program (3)	Boulder County Nature Association (4)
Northern Goshawk				4,5
Golden Eagle				4
Prairie Falcon				4
Bald Eagle	FT	ST	S1B	
Flammulated Owl				4
Long-eared Owl				1
Lewis's Woodpecker				1,4
American Three-toed Woodpecker				4
Olive-sided Flycatcher				4

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Pygmy Nuthatch				4
American Dipper				4
Golden-crowned Kinglet				4
Loggerhead Shrike				1,4
MacGillivray's Warbler				PIF
Western Tanager				PIF
1. Federal Status Codes: FE = Federally Endangered; FT = Federally Threatened				
2. State Status Codes: SE = State Endangered; ST = State Threatened; SC = State Species of Concern (not a statutory category)				
3. Colorado Natural Heritage Program (CNHP) Status Codes: S1 = Critically imperiled in state; S2 = Imperiled in state; B = Breeding				
4. Boulder County Nature Association (BCNA) Status Codes: 1 – Rare and Declining; 2 – Declining; 3 – Rare; 4 – Isolated or restricted population; 5 – Needs more research; PIF – Partners in Flight declining species				

Potential Amphibian and Reptile Species of Special Concern, Federal, State and CNHP-Potential Habitat at Walker Ranch

Common Name	Federal Status ¹	State Status ²	Colorado Natural Heritage Program ³
Amphibians			
Northern Leopard Frog		SC	
1. Federal Status Codes: FE = Federally Endangered; FT = Federally Threatened			
2. State Status Codes: SE = State Endangered; ST = State Threatened; SC = State Species of Concern (not a statutory category)			
3. Colorado Natural Heritage Program (CNHP) Status Codes: S1 = Critically imperiled in state; S2 = Imperiled in state; B = Breeding			

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Butterfly Species of Special Concern, Federal, State and CNHP-*Documented at Walker Ranch

Common Name	Federal Status¹	State Status²	Colorado Natural Heritage Program³
*Mottled Duskywing			S2S3
Hops Feeding Azure			S2
1. Federal Status Codes: FE = Federally Endangered; FT = Federally Threatened			
2. State Status Codes: SE = State Endangered; ST = State Threatened; SC = State Species of Concern (not a statutory category)			
3. Colorado Natural Heritage Program (CNHP) Status Codes: S1 = Critically imperiled in state; S2 = Imperiled in state; B = Breeding			

APPENDIX G. WALKER RANCH BIOLOGICAL RESOURCE EVALUATION

The Biological Resource Evaluation that was a guiding document for much of this Management Plan is located online here: <http://www.bouldercounty.org/doc/parks/walkerreseval.pdf>

APPENDIX H. TEAM MEMBERS

Walker Ranch Interdisciplinary Planning Team

The Walker Ranch Management Plan Revision was developed through the efforts of the Walker Ranch Interdisciplinary Planning Team.

Ron Stewart, BCPOS Director
Al Hardy – Recreation and Facilities Division Manager
Rich Koopmann – Resource Planning Division Manager
Therese Glowacki – Resource Management Division Manager
Carol Beam – Historic Preservation Specialist
Don Burd – Buildings and Historic Preservation Supervisor
Meredith Dutlinger – GIS Analyst
Pascale Fried – Education and Outreach Supervisor
Amanda Hatfield – Ranger/Walker Ranch Caretaker
Chad Julian – Forestry and Fire Supervisor
Jennifer Kesler – Plant Ecologist
Susan Spaulding – Senior Wildlife Biologist
Nick Stremel – Forestry Technician
Andy Tyler – Trails Supervisor
Jim Webster – Trails Specialist